THE QUESTION OF EVIL AND SUFFERING IN THE WORLD

Waheed Ahmad

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FOREWORD

One day a dear friend of mine mentioned to me that more and more young people of Islamic faith are questioning the existence of God. To some young people, particularly those who have studied physical sciences, the concept of a merciful God appears untenable with so much evil and suffering prevalent in the world. These youths seem to echo the age-old question that if God is indeed so kind, caring and compassionate, then why He allows so much vice, malevolence and injustice to prevail in the world.

The question of evil and suffering in the world is not new and many a philosopher has addressed the issue over the ages. In the Christian world, more has been written on this particular issue than any other single subject. Unfortunately, most scholars have looked at this problem in the light of their own specific creed or school of thought. Thus, Hindus have invoked the role of *karma* in one's life and the possibility of eventual salvation after the near endless cycle of births and rebirths. The Buddhists readily accept the presence of suffering in the world and advocate a state of mind to deal with it. In the Christian faith, the root cause of all suffering is Adam's fall from grace. It recognises the suffering in this world but promises an eternal life to come one day. The Islamic faith looks at human suffering as a catalyst for achieving nearness to God through patience and prayer. This religion, too, believes that suffering in this world shall be rewarded with bliss and delight in the Hereafter.

Since most of the persons who raise the question of evil and suffering have already a shaky faith and little or no belief in God, the author has attempted to tackle this question purely on logical and secular grounds.

Three Chapters in this book are devoted to the question of suffering caused by human beings, diseases and natural disasters. To keep the text flowing smoothly, much of the statistical data on human casualties by individuals, armed conflicts, and from natural disasters is limited to summary tables within the body of the text. Relevant details have been moved to the Appendices towards the end. Note that Appendices 1A, 1B,

1C, 1D and 1E all pertain to Chapter 1. Similarly, Appendices 2A, 2B, 2C and 2D all pertain to Chapter 2.

Chapter Four is devoted to summarising our findings and making concluding remarks.

In the final Chapter of the book, a case is made that evil and suffering in the world are not inconsistent with the concept of a Benign and Merciful God.

Several persons have assisted the writer in reading the manuscript and offering valuable advice and suggestions. Among these is Maulana Zahid Abid Sahib who carried out the review in Canada and Maulana Munir-ud-Din Shams Sahib who arranged for the review in London. I am most grateful to all of them for improving the content. Any errors or omissions that remain are the sole responsibility of the author.

Pir Waheed Ahmad
June 2018
Mississauga, Canada

THE QUESTION OF EVIL AND SUFFERING IN THE WORLD

INTRODUCTION

There is hardly a person in the world that does not come face to face with some form of evil or suffering during the course of his or her life. Evil can come in the form of injustice, bullying, persecution, discrimination, harassment, maltreatment, robbery, sexual assault, massacre, torture, cruelty, brutality, wickedness, crookedness, deceit, fraud, treachery, betrayal, treason, death and a score of other similar conditions that make us suffer. The evil may have the connotation of being morally wrong or it may be just bad without any moral judgment attached to it. The resulting suffering can be physical in the form of pain, ache and injury, or mental in the form of grief, agony, anxiety, anguish, sorrow, gloom, melancholy, misery, woe, despair, depression, loss and frustration. Suffering may also arise from harsh conditions such as illness, disease, poverty, hunger and natural disasters.

Throughout the ages, people have raised the question that if God was indeed Omnipotent, Omniscient and Merciful, then why is there so much evil and suffering in the world.

The first person who appears to have raised the issue in this form was the ancient Greek philosopher Epicurus (341-270 BCE) credited with the founding of the Epicurean school of philosophy. He is widely quoted as having said:

> "Is God willing to prevent evil, but is not able to? Then He is not omnipotent. Is He able, but not willing? Then He is malevolent. Is He both able to and willing? Then, whence cometh evil? Is He neither able nor willing? Then why call Him God?"

Ever since the time of Epicurus, many scholars and philosophers have discussed the issue of evil and suffering. During the medieval period, the philosophers readily accepted the existence of God and simply tried to justify the presence of evil in a world created by an omnipotent and merciful God. To the medieval philosophers, the co-existence of evil and an omnipotent and merciful God was not a logical contradiction. During

and after the European renaissance, however, the perspective on this age-old issue changed substantially. The post-renaissance philosophers began to challenge the omnipotence and benevolence of such a God who allows the existence evil and suffering in the world. In the present times, the issue surfaces less as a philosophical query and more as an argument to deny the existence of God. It is argued that the presence of evil, *vis-a-vis* an omnipotent and merciful God, is logically inconsistent thereby leading to the conclusion that a merciful God—as presented by the theists—simply does not exist. It is also argued that since God is the ultimate source of everything in this universe, His creation of evil and Satan in fact implicates him in the situation and He cannot be truly holy and pure.

To some people, the concept of a merciful and caring God does not sit well with the actual situation in the world that is filled with all sorts of grief, suffering and torment. The dichotomy in the world where God is portrayed as all good and Satan as entirely evil, lacks resonance with some intellectuals today since it is God Who is supposed to be the Creator of the universe—including Satan.

For the purpose of our discussion, we shall look at the various manifestations of evil—and subsequent suffering—under the following headings:

1. Evil and suffering perpetrated by man against other human beings

2. Pain and suffering caused by diseases, illnesses and congenital disorders

3. Emotional suffering caused by a person's inner self due to feelings of jealousy, avarice, covetousness and grief.

4. Pain and suffering caused by natural disasters

In point (1) above, the perpetrator of evil is clearly man and the objection is raised as to why a merciful and caring God gives such license to man that he can commit horrible and despicable acts on this planet. These acts include murder, rape, kidnapping, robbery, torture, slavery, imprisonment, starvation, hunger, displacement, poverty and general deprivation of all that we consider our human rights. People wonder as to what kind of God would allow the rape of four-year old girls, the brazen massacre of innocent populations, the burning down of people's homes and hamlets and the general slaughter, carnage and mayhem that is evident throughout human history.

In point (2) above, the objection is levelled directly against God as to why so many people suffer from painful diseases, illnesses and genetic disorders—that may be no fault of their own. Epidemics wipe out millions of people in a short time. What divine purpose is served by such suffering, which afflicts humans and animals alike in large numbers? Could not an all-merciful and all-caring God create a world where there was no human or animal suffering through infections, viruses and innumerable ailments? Similarly, why would a merciful God burden newborn babies with genetic and congenital disorders?

Point (3) above is seldom raised in the context of our present discussion since much of the responsibility for this kind of pain and suffering rests with the individual itself. However, we have included this point so that we can address all kinds of human suffering. For many individuals, suffering through avarice, covetousness and grief can be unbearable and may lead to severe depression, despair and even suicide.

In point (4) above, objection is raised against God for bringing about innumerable natural calamities—almost on a daily basis—that are the cause of intense and widespread suffering among the people and animals. Earthquakes bring down people's homes and shelters in the wink of an eye; tsunamis, storms, floods and sea surges inundate homes and towns; volcanic eruptions bury entire habitations under ash and the molten lava literally burning people alive. Furthermore, humanity lives under constant threat from meteor strikes and solar flares. Many natural disasters destroy settlements, livelihoods and the very lives of people and animals in mere moments. Invariably, such disasters are followed by a long period of

diseases and famines, thus adding further suffering to an already distressing situation. Although caused by natural physical laws, these disasters are ultimately in the control God.

The persons who raise the above objections visualise an alternative world which is created completely free of evil, diseases, suffering and natural catastrophes—a world in which all human beings live together—peacefully and happily. In such a utopia, man acts kindly unto other human beings and natural agents that could conceivably cause suffering—such as diseases, body disorders and calamities—simply do not exist. The imagery in their minds is akin to the Biblical Eden before the expulsion of Adam and Eve from the garden of peace and tranquillity. Why did not God, they argue, create such a world? For a truly omnipotent and all-powerful creator it is easy to create a world that is all good compared to one that is full of evil and suffering.

Questions like the above have plagued mankind. No one knows when mankind began exercising its conscious mind. Questions such as these have been tackled by our moralists, ethicists, philosophers and prophets. Different people have given different answers and different creeds have looked at the issues in their own perspectives. In defence of the issue, an entire field of philosophy has evolved known as Theodicy or the vindication of divine goodness and providence in view of the existence of evil. In its simplest form it attempts to answer the objection as to why a benevolent God permits the manifestation of evil and suffering in the world. The term "theodicy" was first coined by the German philosopher Gottfried Leibniz in his 1710 philosophical dissertation *Théodicée*. The full title of Leibniz's book, when translated into English, reads: *Theodicy: Essays on the Goodness of God, the Freedom of Man and the Origin of Evil*.

Religious people have invariably invoked the ultimate supremacy of God's mercy in all that *appears* to be evil in the world. They have attributed the existence of evil as a 'test' or 'tribulation' for human beings to be firm in their faith and something that brings them closer to God during their beseeching and prayers. Some faiths have simply accepted the moral dichotomy in the world and advocated siding with the 'good' force

to defeat the 'evil' force. Some creeds have argued that all the suffering in this world would be repaid one day by equivalent good in the Hereafter.

While the religious scholars have offered a number of possible reasons for the existence of evil and suffering, their atheist counterparts have largely ignored the situation. They either hold that the world is as it is, or actually denounce the situation by showing an obvious contradiction *vis-a-vis* a benevolent God.

After the Second World War, an anti-theodicy movement has emerged largely by Jewish philosophers who refused to accept the goodness of God in the face of the horrors of the Holocaust. Thus, philosophers such as Emmanuel Levinas (1906-1995), David Blumenthal (b. 1938) and Zachary Braiterman (b. 1963) while believing in the existence of God, advocate the right of the Jews to protest the evil of the Holocaust along the style of Job's protest in the Old Testament.

It is in this backdrop of history that we tackle the question of evil and suffering in the world yet again in the present discussion. Since people belonging to all faiths and denominations raise the question—including atheists and agnostics—every effort has been made to answer it as much as possible on purely secular, logical and scientific grounds.

In what follows, we shall take up the various manifestations of evil and suffering as listed above and offer our explanations that are based entirely on logical premises.

As the question of evil and suffering is raised mostly by those who do not believe in God, the last Chapter of this book is devoted to this very issue.

Chapter 1
EVIL AND SUFFERING CAUSED BY MAN

Objection 1:
"MAN HAS CAUSED GREAT EVIL AND SUFFERING"

Perhaps the worst evils and consequent sufferings that the world has endured in history have come from the hands of man against his fellow being. At individual level as well as at the level of a state and organisation, human beings have perpetrated some of the vilest, wickedest and most heinous acts of massacre, torture, rape, carnage and butchery that can be imagined. It should be noted that the death toll is just one statistics of the actual brutality perpetrated by these persons. For each individual that was killed, many more suffered through torture, imprisonment and other hardships. The history of humanity is written literally in blood. An example of some of the most violent and devastating acts of barbarism against fellow men are summarised in Tables below in a chronological order. Details of these atrocities are given in Appendix-1A.

Major Sufferings Caused by Individuals

Perpetrator	**Period**	**Casualties**
Genghis Khan	1162-1227 C.E.	20-60 million
Hulagu Khan	1218-1265 CE	+1 million
Tamerlane	1325-1405 C.E	17 million
Leopold II of Belgium	1835-1909 C.E	10 million
Talaat Pasha	1874-1921 C.E	1 – 1.5 million
Joseph Stalin	1878-1953	20 – 60 million
Adolf Hitler	1889-1945	11 million
Mao Zedong	1893-1976	70 million[1]
Pol Pot	1925-1998	1 – 3 million

[1] These casualties include direct executions as well as indirect deaths through famines caused by the actions of Mao Zedong.

The above accounts only mention those people whose actions brought suffering to millions of people. The list becomes much longer if we look at people whose actions brought suffering to thousands and hundreds of thousands of persons. Following is a list of some of these in a chronological order. Details of their actions are provided in Appendix-1B.

Perpetrator	**Period**	**Casualties**
Herod the Great	37-4 BCE	10,000 – 150,000
Caligula	12-41 CE	
Nero	37-68 CE	
Attila the Hun	395-453 C.E	
Godfrey of Bouillon	1060-1100 C.E	
Tomas Torquemada	1420-1498 C.E	
Vlad III (Dracula)	1431-1476 C.E	
Ivan the Terrible	1530-1584 C.E	60,000
Elizabeth Bathory	1560-1614 C.E	
Mazmilien Robespierre	1758-1794 C.E	140,000
Heinrich Himmler	1900-1945 C.E	
Hirohito	1901-1989 C.E	Tens of millions[2]
Richard Heydrich	1904-1942 C.E	80,000
Adolf Eichman	1906-1962 C.E	
Josef Mengele	1911-1979 C.E	400,000
Kim Il Sung	1912-1994 C.E	
Idi Amin Dada	1923-2003 C.E	300,000 – 500,000
Robert Mugabe	1924-Present	20,000
Saddam Hussein	1937-2006 C.E	500,000
Osama bin Laden	1957-2011 C.E	

Genocides and Ethnic Cleansings

Leaving the individuals aside, we see many wholesale slaughters of people in history under the title of genocides. The term genocide is used for the deliberate and systematic destruction or ethnic cleansing of racial and religious groups—usually the minorities. Genocide is now labelled a

[2] Casualties include total death toll ascribed to Japanese atrocities during the Second World War.

crime under international law and is considered contrary to the spirit and objective of the United Nations. Genocides have been actively practised by human beings throughout history. Examples of such mass atrocities are tabulated below in a chronological order. Details are provided in Appendix-1C.

Genocide Reference	**Period**	**Casualties**
Zungar Genocide	1755-1758	500,000 – 600,000
Circassian Genocide	1817-1867	400,000 – 1.5 million
Congo Genocide	1885-1908	3 – 10 million
Hamidian Massacres	1894-1896	80,000 – 300,000
Herero and Nzamaqua Genocide	1904-1908	24,000 75,000
Greek Genocide	1915-1918	200,000 – 1 million
Armenian Genocide	1915-1923	800,000 – 1.5 million
Assyrian Genocide	1915-1923	275,000 – 750,000
Decossackization	1919-1920	300,000 – 500,000
Holodomor Genocide	1932-1933	4.5 million
Holocaust	1933-1945	+6 million
Polish Genocide	1937-1938	110,000 – 250,000
Nanking Massacre	1937-1938	275,000 – 450,000
Dersim Massacre	1937-1938	13,000 – 70,000
Ustasha Genocide	1941-1945	78,000 398,000
Volhynia Massacre	1943-1944	60,000 – 200,000
Mayan Massacre	1962-1996	100,000 – 200,000
Indonesian Massacre	1965-1966	500,000 – 2 million
Nigerian Civil War	1967-1970	1 – 3 million
Bubi Genocide	1969-1979	20,000 – 80,000
Burundi Massacre	1972	50,000 – 100,000
Ethiopian Red Terror	1977-1978	30,000 – 500,000
Western New Guinea Genocide	1984	100,000
Kurdish or Al-anfal Genocide	1986-1989	50,000 – 200,000
Rwanda Genocide	1994	500,000 – 1 million
Srebrenica Massacre	1995	8,000
Darfur Genocide	2003-2010	400,000
Yazidi Genocide	2015	5,000

Devastations through Wars and Battles

Since the very day that Cain slew his brother Able, man has been fighting man for the sake of territory and personal gain. Some of the worst conflicts in history took the shape of wars, some of them extending for several years or decades, and inflicted heavy toll upon both sides. Some of the worst wars in history that took a toll of more than one million lives on both sides are tabulated below. Details of these conflicts are provided in Appendix-1D.

Wars & Battles	**Period**	**Casualties**
Kurukshetra War	1200-800 BCE	4 million
Punic Wars	264-146 BCE	1.6 million
Gallic Wars	58-50 BCE	1 million
Siege of Jerusalem	73 CE	1.1 million
Three Kingdoms War	184-280 CE	36 – 40 million
Goguryeo-Sui War	598-614 CE	2 million
An Lushan Rebellion	755-763 CE	21 million
Crusades	1095-1291 C.E	1.7 million
Mongol Conquests	1206-1324 C.E	40 million
Conquests of Tamerlane	1370-1405 C.E	7 – 20 million
Conquests of Mehmet II	1451-1481 C.E	873,000
Conquests of Americas	1492-1898 C.E	55 million
French Wars of Religion (Huguenot Wars)	1562-1598 C.E	2 – 4 million
Japanese Invasions of Korea	1592-1598 C.E	1 million
Qing Dynasty Conquest of Ming Dynasty	1616-1662 C.E	25 million
Thirty Years' War	1618-1648 C.E	6 million
Seven Years' War	1756-1763 C.E	1 – 1.4 million
Napoleonic Wars	1803-1815 C.E	5 million
Shaka's Conquests	1816-1828 C.E	2 million
Taiping Rebellion	1850-1864 C.E	20 – 100 million
Du Wenxin Rebellion	1856-1873 C.E	1 million
Dungan Revolt	1862-1877 C.E	8 – 12 million
Vietnam War (Second Indochina War)	1910-1920 C.E	1 – 3.8 million
Mexican Revolution	1910-1920 C.E	1 – 2 million
World War I	1914-1918 C.E	20 million
Russian Civil War	1917-1922 C.E	5 – 9 million
Chinese Civil War	1927-1949 C.E	8 million

Second Sino-Japanese War	1937-1945 C.E	25 million
World War II	1939-1945 C.E	60 million
Korean War	1950-1953 C.E	1.2 million
First Indochina War (Vietnam War)	1955-1975 C.E	1.5 million
Biafra War	1967-1970 C.E	1 million
Soviet War	1979-1989 C.E	1 – 1.6 million
Persian Gulf War	1980-1988 C.E	1 million
Sudanese Civil War	1983-2005 C.E	1.4 million
Second Congo War	1998-2003 C.E	2.5 – 5.4 million

The above list includes only those wars in which at least a million persons lost their lives. Wars that took a toll of between 100,000 and one million lives are listed below with details provided in Appendix-1E.

Wars & Battles	**Period**	**Casualties**
Battle of Thumbra	547 BCE	100,000
Battle of Plataea	479 BCE	150,000
Kalinga War	262-261 BCE	350,000
Battle of Champing	260 BCE	700,000
Gallic Wars	58-50 BCE	400,000
Second Punic War	218-201 BCE	770,000
Battle of Fei River	383 CE	150,000
Battle of Catalaunian Plains	451 CE	165,000
Battle of Salsu	612 CE	300,000
Siege of Constantinople	717-718 CE	150,000
Battle of Didgori	1121 CE	210,000
Albigensian Crusade	1208-1259 C.E	200,000
Battle of Yemen	1279 CE	100,000
Hundred Years' War	1337-1453 CE	200,000
Battle of Kulikovo	1380 CE	135,000
Battle of Terek River	1395 CE	100,000
Conquest of Delhi	1398 C.E	100,000
Tumu Crisis	1449 CE	200,000
Siege of Tenochtitlan	1521 CE	200,000
German Peasants' War	1524-1525 C.E	100,000
Battle of Chugju	1592 C.E	100,000
Wars of the Three Kingdoms	1639-1651 C.E	300,000
English Civil War	1642-1651 C.E	876,000
The Deluge	1655-1660 C.E	240,000

Great Turkish War	1683-1699 C.E	120,000
Great Northern War	1700-1721 C.E	350,000
Battle of Panipat	1761 C.E	100,000
Battle of Leipzig	1813 C.E	124,000
Indian Rebellion 1857	1857 C.E	100,000
American Civil War	1861-1865 C.E	618,000
War of the Triple Alliance	1864-1870 C.E	400,000
Philippine American War	1899-1912 C.E	234,000
Battle of Mukden	1905 C.E	160,000
Iraqi Kurdish Conflict	1918-2003 C.E	139,000
Battle of Warsaw	1920 C.E	130,000
Arab-Israili Conflict	1920-Present	115,000
Spanish Civil War	1936-1939 C.E	500,000
Siege of Changchun	1948 C.E	425,000
Algerian War of Independence	1954-1962 C.E	350,000
Columbian Conflict	1964-Present	220,000
Islamic Insurgency of the Philippines	1969-Present	120,000
Bangladesh Liberation War	1971 C.E	300,000
Ethiopian Civil War	1974-1991 C.E	500,000
Lebanese Civil War	1975-1990 C.E	120,000
Indonesian Occupation of East Timur	1975-1999 C.E	200,000
Insurgency in Laos	1975-2007 C.E	100,000
Somali Civil War	1986-Present	300,000
Lord's Resistance Army Insurgency	1987-Present	200,000
Afghanistan Civil War	1989-1996 C.E	400,000
Algerian Civil War	1991-2002 C.E	200,000
Second Burundian Civil War	1993-2005 C.E	300,000
War on Terror	2001-Present	300,000
Iraq War	2003-2011 C.E	176,000
War in Darfur	2003-Present	178,000
Mexican Drug War	2006-Present	106,000
Syrian Civil War	2011-Present	220,000

Wars with a toll of less than 100,000 lives are just too numerous to list here.

The above is a very brief account of the major devastations inflicted by man, which have been documented in history. There is practically an infinitely long list of minor conflicts that took toll on human life in the

order of tens and hundreds of people. Crimes against single individuals including batteries, sexual assaults, tortures and murders are simply too many to even count. It may be safe to say that one out of every ten persons who ever lived on this planet faced severe persecution, bodily harm or extreme infringement of human rights—all perpetrated by fellow man. This is a devastating testimony on the record of humankind—the noblest creation of God. Thus, it is very natural that so many people in history have raised this question as to how a truly Merciful and Caring God could allow man to let loose such reigns of terror, torture, murders and mass exterminations on earth.

Mass displacements of people

Direct acts of people and governments as well as neglect by those in authority, have led to mass displacements of people causing great suffering to the populations. The United Nations estimate that as of today, some 65 million persons stand on the registered list of refugees who have fled their homes due to armed conflicts, persecution and in some cases natural disasters. The basis for persecution may be their ethnicity, religion, nationality or membership in specific social or political groups.

The process of mass displacement of people has been going on throughout recorded history and literally hundreds of millions of people have suffered in this way. Other than the naturally caused disasters, much of the blame for such mass displacements falls on the shoulders of human beings themselves. The displaced people live in poor sanitary conditions and have a much higher rate of poverty, diseases and lack of education compared to their fellow citizens.

Poverty

Another source of suffering in the world is extreme poverty rampant in many third world countries. Extreme poverty or destitution is defined as the lack of means necessary to meet basic needs for survival such as food, clothing and shelter. The United Nations and the World Bank estimate that

in 2015, some 702 million people—or nearly ten percent of the world's population—were living in extreme poverty. Nearly 82% of these poverty-stricken people lived in Sub-Saharan Africa and South Asia.

Although there are some natural causes of such large-scale poverty—such as natural disasters, wars and lack of national resources—much of it owes its existence to corrupt governments and corporations, and greedy and ruthless leaders who deprive their citizens from partaking in economic growth and national welfare.

Looting and suffering caused by corrupt leaders

Man has perpetrated human suffering on countless masses through the process of amassing illegal wealth that in fact belonged to the country and should have been spent in improving the lot of the citizens. This has been done so widely in our history that a list of all the individuals guilty of such crime would be prohibitively long to compile and include in this brief book. A list of some of the most recent corrupt leaders is given below just as an example with funds alleged to have been embezzled by them (data is based on internet sources):

Suharto (1921-2008), President of Indonesia ($15-35 billion).
Ferdinand Marcos (1917-1989), President of the Philippines ($5-10 billion).
Mobutu Sese Seko (1930-1997), President of Zaire ($ 5 billion).
Sani Abacha (1943-1998), President of Nigeria ($2-5 billion).
Slobodan Milosevic (1941-2006), President of Serbia/Yugoslavia ($1 billion).
Jean-Claude Duvalier (1951-2014), President of Haiti ($300-800 million).
Alberto Fujumori (b. 1938), President of Peru ($600 million).
Pavlo Lazarenko (b. 1953), Prime Minister of Ukraine ($114-200 million).
Arnoldo Aleman (b. 1946), President of Nicaragua ($100 million).
Joseph Estrada (b. 1937), President of the Philippines ($78-80 million).

The above list should also include the names of **Vladimir Putin**, Prime Minister and President of Russia, **Asif Ali Zardari**, President of Pakistan and **Nawaz Sharif**, Prime Minister of Pakistan. The net worth of these leaders, according to the Panamanian Papers, runs into billions of dollars and much of it is alleged to have been collected through improper means.

The illegal amassing of wealth of such magnitude by these corrupt leaders has deprived the citizens of adequate education, health and other necessary services causing great hardship and suffering.

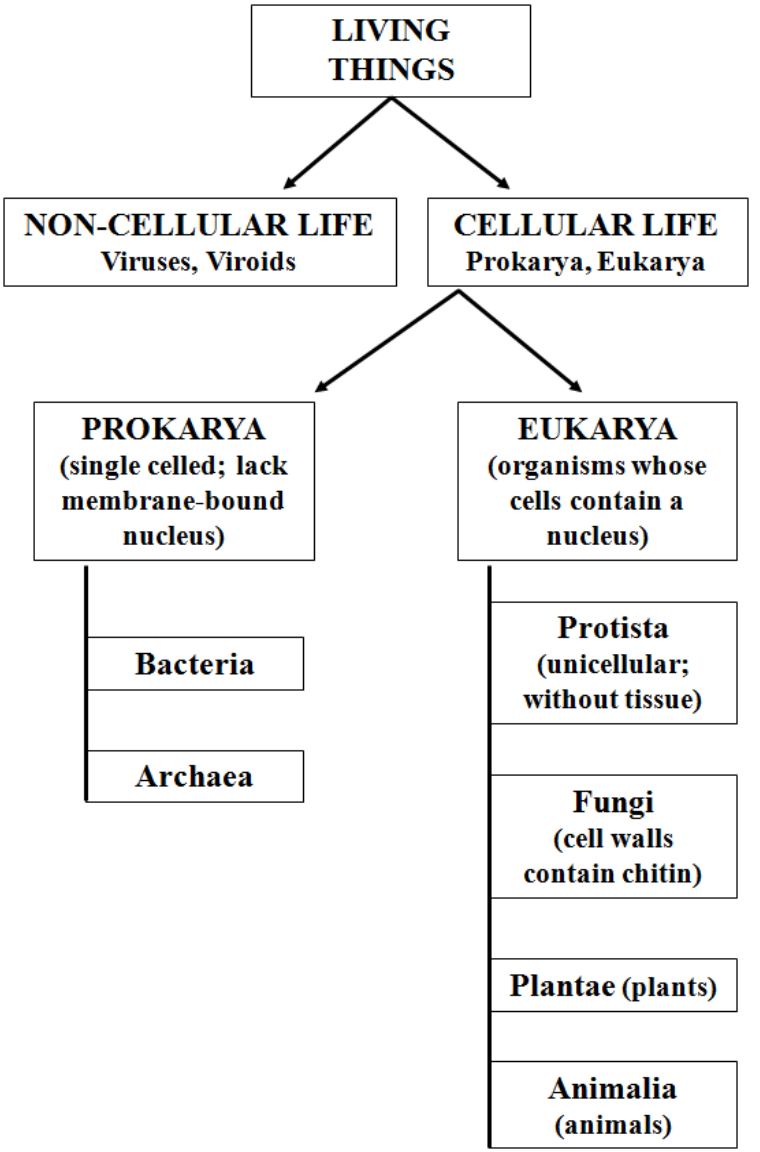
ANSWER TO THE OBJECTION

In this section, we shall attempt to respond in a logical manner to the objection raised in the beginning of this Chapter. The answer to the objection is rather simple: all evil perpetrated by man is due to human Free Will. The explanation to the above simple answer, however, is somewhat lengthy as detailed below.

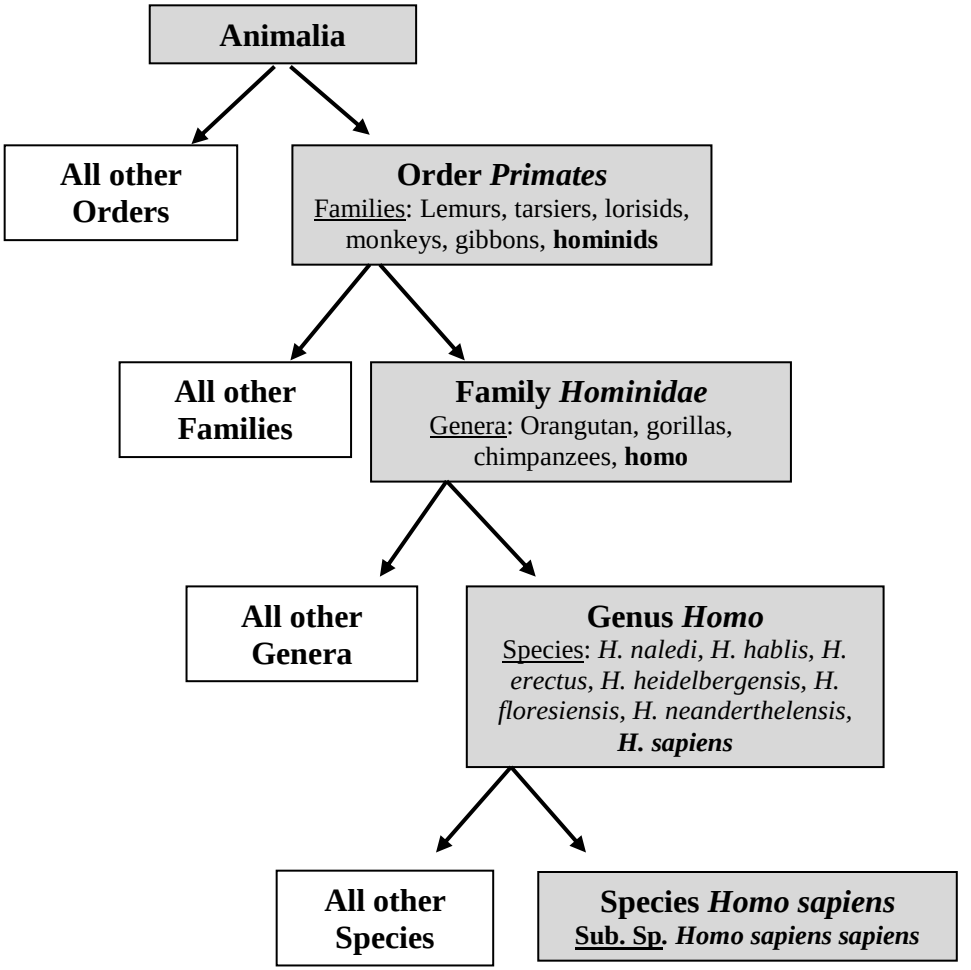
Various Levels of Existence

Things on our planet are either inanimate or living. Living things are those that have the ability to sustain themselves and to replicate or procreate through biological processes. A simplified modern classification of living things is shown in the chart.

Classification of Living Things



A Simple Classification of Life & Position of *Homo Sapiens* within the Animal Kingdom



The **Animalia Kingdom** constitutes the most advanced form of life on our planet. Within the Animalia, the order of Primates represents the most advanced group and includes lemurs, tarsiers, lorisids, old world monkeys, new world monkeys, gibbons and the hominids. All primates are characterised by large brains (relative to their body size), stereoscopic and multi-colour vision, opposable thumbs, slower rate of development and maturity, and relatively longer life spans.

Within the **Primates**, the Hominid family occupies the highest level in terms of intelligence and the ability to use tools. Various genera in the Hominid family include orangutan, gorilla, chimpanzee and homo.

The **genus Homo** is presently represented by only one species—*Homo sapiens sapiens* (literally meaning "wise man")—and refers to the modern man, which is us. Historically, however, other species have existed in the genus *Homo* during the past 2.8 million years and included:

Homo naledi (2.5 to 2.8 million years ago),
Homo habilis (1.5 to 2.8 million years ago),
Homo erectus[3] (70,000 to 1.9 million years ago),
Homo heidelbergensis (200,000 to 600,000 years ago),
Homo floresiensis (15,000 to 75,000 years ago), and
Homo neanderthelensis (40,000 to 300,000 years ago).

The genus *Homo* is believed, according to the latest research, to have derived from *Australopithecus* (meaning "southern ape") after some 3 million years ago.

Our ancestor, ***Homo erectus***, appeared some two million years ago in East Africa from where it spread throughout Africa and Eurasia. It lived the lifestyle of a hunter-gatherer and was able to control fire.

Our own species, ***Homo sapiens sapiens*** or modern man, emerged anywhere from 100,000 to 200,000 years ago in East Africa and during the past 60,000 years, spread throughout Africa, Eurasia, Americas and Oceania. Until 40,000 years ago, some archaic species of Homo lived

[3] Java Man (700,000 to 1,000,000 years old) and Peking Man (680,000 to 780,000 years old) also belong to the *Homo erectus* species.

alongside the modern man. The last species of archaic Homo, *Homo neanderthalensis* or Neanderthal Man, likely became extinct around 40,000 years ago[4].

Unlike other primates that are confined largely to tropical forests of the world, humans have spread to every continent in the world and have adapted themselves to live under a variety of climatic conditions. Humans are the most resourceful species on earth and represent the only life form that is capable of conscious thought as opposed to instinctive behaviour evident in all other animals. During much of our evolutionary growth, we acted the same as other animals. At some point in time, our brain capacities started to become large and we began to use advanced tools. Aided by some of our specific anatomical features—such as fingers, opposed thumb and stereoscopic and colour vision—we began to utilise our brains for the purpose of hunting and gathering.

Gaining excellence in the pursuit of game and the ability to harness agriculture were not our truly great achievements *per se*. Other animals have perfected hunting skills to a much greater degree and several animal species are capable of agriculture and the storing of food. What really separates us from other Hominids is our ability to make and appreciate drawings, our ability to use advanced form of language, and our ability to think about matters that are totally unrelated to our immediate needs to support our life.

Our language, the dexterity of our hands, and the capacity of our brains to 'think' have given us our epic poems and literature; our art, sculpture and architecture; and our implements, tools, and machines. Over our long history, we have attained increasingly greater sophistication in all our endeavours. While our brains helped us to unravel the workings of the world around us, we also engaged our minds in philosophising and logic. We not only developed the knack of abstract thinking but we could also visualise situations that did not even exist.

[4] Some scholars place the extinction of the Neanderthal Man at a more recent date of 20,000 years ago.

Gift of Free Will

At some stage during our long evolutionary development we acquired the trait that is commonly referred to by the philosophers as Free Will. We began to do things not only through instinct but also based on conscious thought. The exercise of Free Will simply means that under similar circumstances, we choose to react in one way rather than another. In other words, we are not always driven by instinct but have a choice in our actions, largely based on conscious thought. These conscious actions, however, may be influenced by our environment, our experiences and our innate likes and dislikes to some degree. Nevertheless, we do have a choice and do exercise it very frequently in our daily lives.

Our conscious mind and the exercise of Free Will are perhaps our most distinctive features when compared to the rest of the animal kingdom. If a question were ever asked as to how willing we would be to lose our conscious mind and the ability to exercise our Free Will, hardly a person would respond in the affirmative. This is our prize possession that has placed us at the apex of all living species in the world.

However, our conscious mind and our ability to exercise Free Will, are double-edged swords. They can be put to good use as well as to bad. With the same conscious mind and Free Will, we can lend a helping hand to some needy person or, alternatively, we can bring great harm to him — both at our mere whim and fancy.

The very presence of Free Will means that we are free to do good or evil. In fact, the use of the words ‘good’ and ‘evil’ only makes sense if we have Free Will. Other animals do not do ‘good’ or commit ‘evil’ since they normally do not possess any *choice* during their actions.

To have Free Will and yet be limited to performing only good actions is in fact a contradiction in terms. People who say that God could have created us in such a way that we are not able to commit any evil—and thus cause no suffering—need to understand that this requires that we surrender our ability to exercise Free Will. How many of us would really volunteer for such an action?

Much as we like our comforts and a peaceful life, we are never willing to exchange them for the lack of Free Will. A world in which all material

comforts are provided and no one hurts anyone else indeed appears very attractive at the surface. However, with the lack of Free Will in such a world, we would be living as animals or automatons. Many of us would prefer to leave such a world and take our chances in a world where we are free to exercise our choices—good or bad—although we may face challenges and adversities. It is like leaving a prison where everything is provided for our sustenance—including food, clothing and shelter—and venturing out into the free world where not only would we have to work hard to survive but also face dangers and evils and suffering. Yet, this would be the choice for many of us.

Freedom, in the fullest sense of the meaning, is the greatest conferral endowed upon humanity. This is our one prized possession for which we have readily given up our lives. It is true that many among us have used this freedom in the wrong way and have caused much evil, pain and suffering in the world. But then it should be remembered that our enlightenment has only just begun. In terms of geological time, it was not long ago that our ancestors led an arboreal life. A span of only 2.8 million years is not a very long period in the history of this universe. We are just coming of age and appear to be moving in the right direction, albeit somewhat slowly.

In summary, as long as humans have the ability to use Free Will, we will continue to see people making wrong choices—simply because they *can*. However, we can reduce the amount of evil that humans perpetrate by implementing proper education, training and upbringing. We can also help the situation by improving our social institutions, respecting the rights of each individual and applying high standards of impartial justice—the lack of which is perhaps the most common cause of resentment and conflict. However, to eliminate human evil altogether, we would need to opt for the alternate world as suggested by the critics—a world whose underlying premise may never be acceptable to the human kind.

Chapter 2
SUFFERING CAUSED BY DISEASES AND DISORDERS

Objection 2:
"DISEASES AND ILLNESSES CAUSE GREAT SUFFERING"

The second objection raised against the existence of a benevolent Creator and Nourisher is the obvious prevalence of diseases and illnesses in the world that cause great pain and suffering not only to humans but also to all living species.

The objectors argue that many people suffer from debilitating and extremely painful illnesses, which should have no place in a world created by a truly caring and compassionate God.

Before we answer this objection, let us explore the subject of diseases and illnesses at some length.

The pathologists broadly define the term 'disease' as a condition that impairs the normal functioning of the body. There are several causes for a disease to take hold. Below, we present a very simple classification that would be useful in our discussion of the subject:

1. Diseases caused by **foreign pathogens** (such as viruses, bacteria, fungi and parasites)

2. Diseases caused by **internal dysfunction** of the body and organs (such as cancer, heart disease, kidney failures, etc.)

3. **Congenital conditions** and genetic disorders, and

4. **Emotional disorders** originating from within the human body due to feelings of avarice, greed, covetousness and grief.

1. Diseases Caused by Foreign Pathogens

Foreign pathogens in the form of virus, bacterium, fungus or parasite can infect their host and cause a disease. Transmission of the pathogen to the host may take place through the air, physical or sexual contact, through body fluids or through ingestion.

Viruses are one of the most common types of pathogens that cause several diseases in humans, animals and plants. They are small infectious agents that replicate only inside a living cell of another organism — such as bacteria, plant or animal. While outside a living cell, viruses exist in the form of independent particles that contain their genetic material in the form of DNA or RNA protected by a coating of protein. Because they lack a proper cellular structure, they are not classified with other living things although they do have the ability to replicate. Their growth, however, is different from the growth of crystals as they inherit genetic mutations and are subject to natural selection. The viruses are extremely small and can rarely be seen with an optical microscope; they are usually studied through electron microscopy. Some well-known diseases caused by viruses include AIDS, chickenpox, dengue fever, Ebola, hepatitis, herpes, human immunodeficiency virus infection (HIV), human papillomavirus infection (HPV), influenza, measles, mumps, polio, rabies, rubella, smallpox, viral hemorrhagic fever (VHF), West Nile disease and yellow fever. Most antibiotics have no effect on viruses. The human body does produce antibodies to fight viral infections.

In the evolutionary process, viruses play an important role as agents of horizontal gene transfer (HGT) which increases genetic diversity.

The influenza epidemic of 1918-1920 infected some 500 million persons worldwide and caused the death of some 50 to 100 million persons amounting to 3 – 5 percent of the world population at the time. The mortality rate was 10 – 20% of those infected.

Bacteria consist of a large domain of prokaryotic[5] microorganisms that are significantly larger in size compared to the viruses. They come in different shapes and sizes and—along with viruses—are believed to be the first life forms that appeared on the earth billions of years ago. Bacteria grow to a fixed size and then divide through binary fission. While many bacteria are in a mutually beneficial relationship with the host, several do cause diseases. Illnesses caused by bacteria include anthrax, diphtheria, gonorrhoea, leprosy, Lyme disease, plague, pneumonia, streptococcal infections, syphilis, tetanus, tuberculosis, typhoid and typhus. Bacteria also cause many food-borne illnesses such as salmonella poisoning. Bacteria are so common and abundant in nature that their entire biomass on earth exceeds that of all plants and animals combined.

Bacteria also play a very beneficial role in nature. Many nutrient cycles are dependent on bacteria such as the fixation of nitrogen from the atmosphere and putrefaction and decomposition of dead bodies. The largest collection of bacteria in the human body resides in the intestines where they help with the breakdown of the food into absorbable components.

Fungi include a group of eukaryotic organisms that range in size from the unicellular yeasts and moulds to multi-cellular mushrooms. While most diseases caused by fungi pertain to plants, they do cause some illnesses among humans as well such as aspergilloses, histoplasmosis, phycomycosis, cryptococcosis, blasto-mycosis, and candidiasis. Fungal attacks on eyes, nails, hair and skin (jock itch and yeast infection) are common.

Parasites are multi-cellular microorganisms that live on or in the bodies of their hosts. Common examples include tapeworms, flukes, plasmodia (malarial parasites) and fleas. The illness called bilharzias is caused by the parasitic worm *Schistosoma*. By drawing their nourishment from their host, the parasites weaken them and may even kill them. The

[5] A Prokaryote is a single-celled organism that lacks a nucleus bound by a membrane. A Eukaryote by contrast contains a nucleus.

mosquito borne malaria is a very common disease of the tropical and temperate regions of the world causing nearly 200 million infections annually with a death toll ranging between 600,000 and 850,000 per year.

2. Diseases Caused by Internal Disorders

As opposed to the activities of foreign pathogens, many disorders in the human body are caused internally and are non-communicable. Most common of these are the cardiovascular diseases (CVDs), cancer, osteoporosis, Alzheimer's disease, appendicitis, prostatitis, arthritis and premature failure of body organs such as kidneys, liver, spleen, retina, lens of the eye, tonsils, adenoids and the hearing apparatus. The failure of the body's autoimmune system can also lead to the development of a number of diseases through attacks by foreign pathogens.

The root cause of the internal disorders is not known with complete certainty. Genetic disposition, exposure to harmful substances, lifestyle aspects and possible viruses are some of the suspects. Strong links have been adequately established between lung cancer and smoking; between skin cancer and exposure to the harmful rays of the sun; between obesity and heart diseases; between asbestos inhalation and mesothelioma; between silica inhalation and silicosis; between coal dust inhalation and black-lung disease; and between stressful-living and hypertension.

Causing nearly 31% of all deaths, CVDs are the most deadly diseases in the world. Cigarette smoking, lack of exercise, inappropriate diet, air pollution, fast foods and stressful living are the most common causes. Surprisingly, nearly 80% of all such deaths can be prevented through lifestyle changes and appropriate medication.

3. Congenital Conditions and Genetic Disorders

Congenital disorders are those defects in the body that exist at the time of birth. These may consist of congenital deformities of the limbs and visible body parts, such as cleft palate, or may be internal aberrations such as a hole in the heart or may be disorders of the DNA that may make the

individual victim of or susceptible to other ailments. On average, some kind of birth defect is present in about 3% to 6% of the newborn population.

Some birth defects are caused by defective genes or by genes that do not work as expected. Similarly, some birth defects are associated with an extra chromosome or missing part of a chromosome. Some birth defects affect the nervous system such as Down's syndrome and Autism.

Some congenital conditions have been correlated to lifestyle aspects and environmental conditions. Thus, foetal alcohol exposure is known to cause several congenital conditions including craniofacial abnormalities, brain damage, heart disease, kidney abnormality, skeletal anomalies and ocular abnormalities. Similarly, exposure to many drugs and environmental toxins during pregnancy is known to cause impairment to normal foetal development and mental retardation.

Environmental toxins also include heavy metals, elements and salts that are present in drinking water. The developing foetus is also very susceptible to fluoride and nitrates in the drinking water. Industrial pollutants such as mercury, lead, asbestos, silica and coal dust have been established as confirmed culprits in causing congenital conditions. Some proven links between congenital conditions and outside influences include thalidomide drug that causes malformation of the limbs; Zika virus that leads to microcephaly[6] in newborns; Agent Orange (herbicide containing dioxin) that causes neurological abnormalities and cancer; alcohol consumption by the mother that leads to foetal alcohol syndrome; exposure to the parasite *toxoplasma gondii* in cat faeces by the pregnant woman causes toxoplasmosis in newborn children; smoking during pregnancy that leads to high incidence of still births; and exposure by the pregnant mother to infectious agents such as rubella, herpes simplex and syphilis leads to serious birth defects in babies.

[6] A birth defect in which the baby's head is smaller than expected.

4. Emotional Disorders

Human beings suffer from a range of emotional disorders that may be caused by feelings of greed, avarice, inadequacy, frustration and grief. There does not have to be an organic reason for such pain and suffering but simply our specific response that may manifest itself in some very unusual ways. It is possible for a person to lose his sleep simply over the sight of a brand new Mercedes standing in the neighbour's driveway. How often do we burn with feelings of jealousy over the promotion of a hated colleague? Thus, seeing enviable possessions in the hands of others often raises painful feelings of greed, avarice and covetousness in our hearts.

Another emotion that can prove extremely painful and sometimes deadly is the feeling of grief over the demise of a loved one. People suffering from grief would say that it outweighs any physical pain. In some remote parts of the world, it is customary for a mother's finger to be cut off partially to alleviate her mental anguish after the death of a child.

ANSWER TO THE OBJECTION

There is absolutely no denying that diseases, illnesses and emotional disorders in the world cause great suffering to not only humans but also animals. Because of these maladies, the life span of humans may be shortened and the quality of their life may be severely compromised. Gregory S. Paul (b. 1954), a paleontological and sociological researcher and scholar, has estimated that since 50,000 BCE, some 100 billion people have been born. He estimated that the historical rate of child mortality was over 50% meaning that some 50 billion people died naturally before reaching adulthood. Much of this dying was due to diseases such as malaria.

The question has been raised by many that why does a benign God allow such widespread occurrence of diseases, ailments and emotional disorders in the world. Could He not make the world in such a way that there were no ailments? Let us look at the question from several perspectives and answer it in several stages.

Self-inflicted conditions are no fault of the Creator

Even those who raise the objection would agree that self-inflicted injuries and ailments should not be ascribed to the Creator. Thus, exposure to harmful toxins, ultraviolet radiation, X-rays, and pollutants—and the consequent diseases and illnesses—should be removed from the objection. So should illnesses caused by lifestyle choices such as lack of exercise, obesity, alcohol consumption, drug abuse, smoking and dietary indiscretions. At the same time, one should avoid exposing oneself to infectious pathogens and harmful elements in the environment as much as possible. It simply makes good sense! Thus, a great deal of control rests with the individual itself. It is well established that individuals who look after themselves, follow a healthy lifestyle, and live in societies that are environmentally cleaner, live a longer and healthier life.

Role of Viruses, Bacteria and Mutations in evolution

We recognise that despite all reasonable precautions, one may still get sick and thus suffer. Viruses, bacteria and fungi are all around us and it may be impossible to completely avoid them. Why couldn't an omnipotent deity simply get rid of them? The simple answer to this is that they are an integral part of the evolutionary process and are very important in the present scheme of things.

In evolutionary biology, viruses and bacteria play an important role in Horizontal Gene Transfer[7] or transfer of genes between individuals other than through normal reproduction. HGT has been shown to be an important factor in the evolution of many organisms. Artificial Horizontal Gene Transfer is employed in genetic engineering, which has given us crops that are more resistant to diseases and have higher yields.

[7] As opposed to Vertical Gene Transfer such as from the parent to the offspring through sexual or asexual means.

Not all bacteria are harmful. Friendly bacteria, or Probiotics, are similar to the bacteria found in the human digestive system and possess many health benefits. They are commonly found in yogurt and other fermented foods and supplements.

As stated earlier, both viruses and bacteria were likely the first forms of life that appeared on earth. They have coexisted with the other Eukarya (cellular) life forms for nearly a billion years. They have played an important role in the evolution of life on earth and will continue to do so in the future.

To say that all viruses, bacteria and fungi should simply not exist—because they cause diseases — is a very short-sighted statement that is based on little knowledge of these microscopic life forms and their role in nature. It is like saying that dogs should not exist because they can bite us; or fire should not exist because it can burn us; or automobiles, trains, airplanes and other modes of transport should not exist because they can kill us. It is a fact that we live in a dangerous world and it is only prudent that we protect ourselves from harmful viruses and bacteria just as we protect ourselves from fire, electricity, accidents and our tools and machines.

It should also be noted that many human congenital diseases are caused by mutation. Very simply put, mutation is a permanent change in the nucleotide sequence of the genome in an organism. Mutations result from damage to the DNA that is not repaired. They may or may not produce discernible changes in the character of the organism. When they do affect the individual, they can be both harmful as well as beneficial. Mutations may also involve the change in the number of chromosomes. This is the main difference between the humans and other apes. During evolution, changes in the number of chromosomes may have played a vital role in increasing diversity and initiating the formation of new species (process of speciation).

For example, a moth's offspring may develop a different colour of wings due to some mutation. If this colour is useful to the offspring—such as making it blend in with the environment and making it more difficult to spot by its hunter—the colour variant would likely proliferate due to natural selection. Eventually, a new species may replace the earlier one.

Thus, instead of saying that all harmful things should have been banned by the Creator, we need to understand why Nature is the way it is and learn from it. This line of thinking is developed further in Chapter 4.

Rooting out emotional disorders

Emotional disorders caused by feelings of greed, avarice, covetousness and grief are a very common source of sorrow, misery and unhappiness among humans. In its extreme development, such disorders can lead to permanent depression and despondency, making the body more susceptible to organic diseases. Although the individual itself has caused such disorders, a case could conceivably be made that the benevolent Creator should have done away with the underlying causes—much like the case against human evil and diseases. One could argue that just as the Creator's mercy demands that there be no evil and suffering in the world, His justice demands that all people should be endowed with like traits and capabilities. This would result in a clone-like population of humans with absolutely no differences—physical, mental or spiritual—among them. As well, all individuals will have the same level of health, wealth, physical beauty, intelligence and worldly possessions. This argument could conceivably be carried out further to the point where the presence of male and female genders could also be viewed as unjust. Thus, the ideal world—as conceived by the critics—is now reduced to a population of a billion clones of a single gender—none excelling the other in any manner whatsoever. Even if it were assumed that they are all Einsteins, there would be no challenge left to outshine, outrun, or outclass the others. There would be no personal achievement, no pride for scaling the tallest mountain, or running the fastest marathon, or making the longest jump, or writing the finest literature, or producing the finest painting or carving the most impressive sculpture. Everyone else, of course, could do all these things equally well. No one, however, would attempt any of such feats, as there would be no particular challenge. The world would lack its present variety, diversity and excellence. The very thought of such a world conjures up a rather dull and mundane place in which to live.

One of the most terrible sufferings in the world is the grief originating from the loss of loved ones. How should the Providence handle this issue? One simple solution could be to confer eternal lives to the human beings. If there were no deaths, there would likely be no grief. Alternatively, the Creator could make us totally numb and immune to such feelings—much like a robot, or an inanimate object. If eternal lives were given to us, the process of birth would have to cease since there is only so much space on any planet. The Creator would be limited to making only so many human clones that can comfortably populate the earth without crowding it or having to fight for its resources. Gone would be the joy of holding a baby in our hands and watch it grow! Gone, too, would be the compassion and satisfaction of caring for one's parents in their old age. We would be left with a world with no births, no deaths, no diversity and a monotonously long life. What a frightening thought!

With everyone being a clone of a single gender and mutations and genetic variations being non-existent, the evolution of life would come to a standstill. Any life form that the Creator would now like to make, He would have to go through the process of special creation.

Chapter 3
SUFFERING CAUSED BY NATURAL DISASTERS

Objection 3:
"NATURAL DISASTERS CAUSE GREAT SUFFERING"

An objection is raised as to why does a benevolent Creator cause natural disasters — almost on a daily basis — to make humanity suffer so much. Why did the deity not create a world that was free of all natural calamities? To appreciate this objection, let us look at what kind of disasters are faced by humanity, how they are caused and how severe are they in their destruction.

A natural disaster is a major calamity that occurs through natural processes of the earth or those within the solar system. Examples of catastrophes caused by meteorological and geological processes include floods, hurricanes, hailstorm, droughts, wildfires, earthquakes, tsunamis, volcanic eruptions, landslides, avalanches and sink holes. The actual source of destruction may also lie outside the earth as in the case of solar flares and impacts of meteorites and comets.

Most natural disasters cause extensive damage to life and property with significant economic consequences to the affected areas. Some examples of major natural disasters are reviewed below.

Earthquakes

The earth's crust is constantly in motion due to the welling up of heat plumes within the mantle below that lies between the crust and the inner core. The elasticity of the spreading oceanic and continental plates allows them to absorb the stresses for a long duration until such time that they snap suddenly and release huge amounts of energy in the form of shock

waves. The energy released by the earthquakes is historically measured on an open-ended Richter scale or more recently on Moment Magnitude Scale[8]. Earthquakes are one of the major natural catastrophes that befall mankind on a regular basis. Those with their loci in the ocean or near the coast may also generate powerful tsunamis (tidal waves) whose destruction can reach thousands of kilometres across the oceans. The cost to lives and property due to quakes is immense and economic recovery takes a long time. Some of the worst earthquakes that have taken place in history are listed below in a chronological order. It should be noted that the fatality data on some very ancient earthquakes is rather sketchy.

Below is a list of some of the major earthquakes that have taken place in the past. Further details on these earthquakes are provided in Appendix-3A.

Earthquake Reference	**Period**	**Casualties**
Antioch	115 CE	260,000
Antioch	526 CE	250,000
Beirut	551 CE	30,000
Damascus, Syria	847 CE	70,000
Damghan, Iran	856 CE	200,000
Ardabil, Iran	893 CE	150,000
Dvin, Armenia	893 CE	30,000
Palmyra, Syria	1042 CE	50,000
Aleppo, Syria	1138 CE	230,000
Eastern Mediterranean	1170 CE	100,000
Eastern Mediterranean	1201-1202 CE	1.1 million
Silicia, Asia Minor	1268 CE	60,000
Chihli, Inner Mongolia	1290 CE	100,000
Nankaido, Japan	1498 CE	30,000
Nepal	1505 CE	30% of population
Shanxi (Shansi), China	1556 CE	830,000
Semakha, Azerbaijan	1667 CE	80,000
Sicily, Italy	1693 CE	60,000

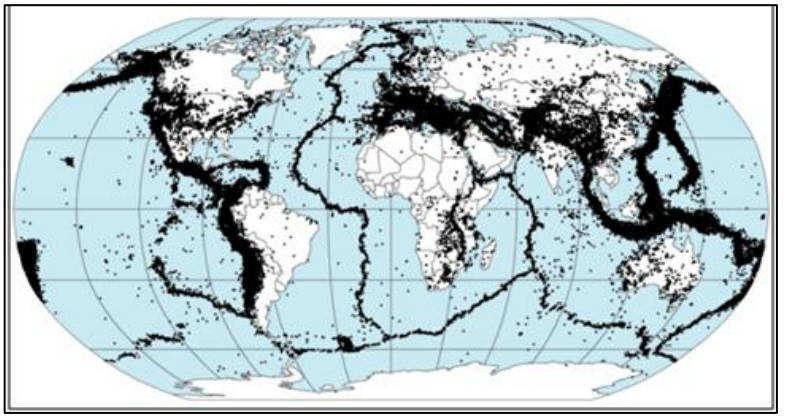
[8] Both Richter and Moment Magnitude scales are logarithmic reflections of the intensity of the shock wave and are very similar in their numbers. Thus, a magnitude 6.0 earthquake releases 32 times more energy than one of magnitude 5.0 and an earthquake of 7.0 magnitude releases 1000 times more energy that one of magnitude 5.0.

Tabriz, Iran	1721 CE	80,000
Lisbon, Portugal	1755 CE	10,000 – 100,000
Iran	1780 CE	200,000
Calabria, Italy	1783 CE	50,000
Riobamba, Ecuador	1797 CE	41,000
Kangra, India	1905 CE	20,000
Messina	1908 CE	100,000 – 200,000
Gansu, China	1920 CE	200,000 – 240,000
Kanto, Japan	1923 CE	140,000
Zining, China	1927 CE	40,000
Quetta, India	1935 CE	30,000 – 60,000
Ashgabat, USSR	1948 CE	110,000
Yungay, Peru	1970 CE	143,000
Tangshan, China	1976 CE	255,000
Rudbar, Iran	1990 CE	40,000
Izmir, Turkey	1990 CE	17,000 – 45,000
Sumatra, Indonesia	2004 CE	225,000
Kashmir, Pakistan	2005 CE	100,000
Sichuan, China	2008 CE	70,000
Port-au-Prince, Haiti	2010 CE	316,000
Tohoku, Japan	2011 CE	16,000

Much of the seismic (earthquake) activity on land is confined to plate margins. Some of the worst seismic areas follow the Pacific Ring of Fire, the juncture of the Indian and Eurasian Plates and the stretch from Afghanistan to the Mediterranean Ocean. Places outside the main seismic belts may still get noticeable earthquakes but generally suffer less damage.

The map below shows the belts of significant seismic activity on the earth, generally aligned with plate margins.

The Earthquake Map of the World
A plot of 358,214 Epicentres, 1963-1998
(www.google.ca/Earthquake Map of the World)



Storms, Hurricanes, Sea Surges and Floods

Storms in the form of rains, hurricanes, sea surges and floods wreak great suffering and pain over large sectors of the earth and its population. Hurricanes, cyclones and typhoons generally originate over the oceans and seas and the wide whirling mass of clouds can generate wind speeds of over 300 kilometres per hour. Heavy rains and winds cause floods and sea surges that can inundate large areas in a short time. Some of the worst disasters caused by these calamities are listed below in chronological order. Further details on these events are provided in Appendix-3B.

Area Reference	**Year**	**Casualties**
Nederland	1212 CE	60,000
Hakata Bay, Japan	1281 CE	65,000
St. Lucia, Nederland	1287 CE	50,000 – 80,000
St. Felix, Nederland	1530 CE	400,000
Backerganj, Bengal	1584 CE	200,000
Kaifeng, China	1642 CE	350,000
Sundarban, Bangladesh	1699 CE	50,000

Hoogly, Bengal	1737 CE	300,000
Atlantic Ocean	1780 CE	22,000
Barisal, Bengal	1822 CE	50,000
Coringa, Bengal	1839 CE	300,000
Bay of Bengal	1854 CE	50,000
Calcutta, India	1864 CE	60,000
Backerganj, Bengal	1876 CE	200,000
Haiphong, Vietnam	1881 CE	300,000
Bombay, India	1882 CE	100,000
Huang He, China	1887 CE	1 – 2 million
Chittagong, Bangladesh	1897 CE	175,000
Galveston, USA	1900 CE	8,000 – 12,000
Tangtze, China	1911 CE	100,000
Wenchon, China	1912 CE	50,000
Swatlow, China	1922 CE	100,000
Huang He, China	1931 CE	4 million
Yangtze, China	1935 CE	145,000
Bay of Bengal	1935 CE	60,000
Huang He, China	1938 CE	500,000
Bay of Bengal	1942 CE	61,000
Northern River, China	1959 CE	2 million
Bhola, Bay of Bengal	1970 CE	300,000 – 500,000
Hanoi-Red River, Vietnam	1971 CE	100,000
Nina, China	1975 CE	100,000
02B, Bangladesh	1991 CE	138,000
Katrina, USA	2005 CE	1,800
Nargis, Burma	2008 CE	138,000

The above list shows that the Bay of Bengal area (Bangladesh and eastern coast of India) is particularly susceptible to cyclone damage due to their low-lying terrain that can be easily inundated by rain and sea surges.

In the context of floods, some of the greatest disasters have taken place in China due to the large size of the rivers and low-lying surrounding terrain. The aftermath of cyclones and floods, particularly in poor regions of the world, invariably leads to shortages of food supplies, lack of clean drinking water and spread of diseases thus worsening the impact of the original disaster.

Volcanic Eruptions

Occasionally, the upwelling mantle plumes from deep in the earth find their way through the solid crust of the earth and release their energy in the form of molten lava, ash and gas. Most of the world's volcanoes are located along margins of tectonic plates that are either diverging from each other or converging onto each other. Damage from volcanoes occurs through the hot lava flow as well as spread of ash, the latter carried over vast distances. A very large eruption can eject so much ash that it can literally blanket the earth in the upper atmosphere thus blocking the sun's rays for months or even years. Occasionally, a volcano completely blows itself out of existence, leaving behind a large hole or caldera. Super volcanoes can also cause significant damage through seismic waves and tsunamis.

The intensity of volcanic eruptions is rated on a scale from 1 to 8 called the Volcanic Eruption Index or VEI. Each number on this scale indicates an intensity that is 10 times higher than the previous number.

Some of the deadliest volcanic eruptions in history are tabulated below in a chronological order with additional details provided in Appendix-3C.

Area Reference	**Year**	**Casualties**
Lake Toba	75,000 BCE	Human population reduced to 3,000 to 10,000 breeding pairs.
Santorini-Therasia, Aegean Sea	1650 and 1500 BCE	Wiped out Minoan civilisation
Vanuatu, Pacific Ocean	50 CE	Little loss of life
Vesuvius, Italy	79 CE	10,000
Ilopango, El Salvador	450 CE	Destroyed early Mayan cities
Changbaistan, China	1000 CE	Material erupted was three times that of Krakatau of 1883
Huaynaputina, Peru	1600 CE	2 million
Vesuvius, Italy	1631 CE	6,000
Laki, Iceland	1783 CE	10,000
Mt. Unzen, Japan	1792 CE	12,000 – 15,000
Mt. Tambora, Indonesia	1815 CE	200,000
Galunggung, Indonesia	1881 CE	4,000
Karakatoa, Indonesia	1883 CE	100,000

Mt. Pelee, Martinique	1902 CE	40,000
Santa Maria, Guatemala	1902 CE	5,000
Novarupta, Alaska	1912 CE	No fatalities
Mt. Kelut, Indonesia	1919 CE	5,000
Nevado del Ruiz, Columbia	1985 CE	23,000
Mt. Pinatubo, Philippines	1991 CE	800

While volcanic eruptions have the potential to cause great disasters and catastrophes in the world, the actual damage done by them in recorded history has been relatively minor compared to hurricanes, floods and earthquakes. One reason is that the source of volcanic eruption—the volcano—is generally visible and known to the people. As well, the eruption is usually preceded by tremors and gas ejection, which give early warnings to the people to vacate the area. Many volcanic eruptions are cyclical and occur after every so many years that allow the people to anticipate the event and prepare for it. Thus, other than a very few catastrophic events of volcanic eruptions in known history, death toll from such events has usually been less than 10,000 persons per event. At the same time, the frequency of deadly volcanic eruptions is considerably smaller compared to other catastrophes such as hurricanes and floods.

Famines and Droughts

Famines and droughts are not sudden catastrophes but take place over a number of years and are caused by weather and climatic aberrations, usually compounded by ineffective relief efforts. Some areas of the world are more likely to cause death and devastation through droughts compared to others. Some of the major famines that have taken place in the world are listed below in chronological order. Further details on these events are provided in Appendix-3D.

Famine Reference	Year	Casualties
Mayan	800-1000 CE	1 million
European	1315-1317 CE	7.5 million
Russian	1601-1603 CE	2 million
Deccan	1630-1632 CE	2 million
Estonian	1695-1697 CE	150,000 – 175,000
Prussian	1708-1711 CE	250,000
Bengal	1769-1773 CE	15 million
Czech	1770-1771 CE	100,000
Chalisa	1782-1784 CE	11 million
Tenmei	1782-1788 CE	1 million
Agra	1837-1838 CE	800,000
Irish	1845-1852 CE	1 million
Upper Doab	1860-1861 CE	2 million
Finnish	1866-1868 CE	150,000
Rajputana	1869 CE	1.5 million
Persian	1870-1871	1.5 – 2 million
Indian	1876-1878 CE	10.3 million
Northern Chinese	1876-1879 CE	13 million
Horn of Africa	1888 CE	1 million
Indian	1896-1902 CE	19 million
Chinese	1907 CE	24 million
Russian	1921 CE	5 – 10 million
Chinese	1928-1930 CE	3 million
Soviet	1932-1933 CE	7 – 10 million
Chinese	1936 CE	5 million
Chinese	1942-1943 CE	3 million
Bengal	1943 CE	1.4 – 4 million
Vietnam	1944-1945 CE	400,000
Soviet	1946-1947 CE	1 – 1.5 million
Chinese	1958-1961 CE	15 – 40 million
Sahel	1968-1972 CE	1 million
Ethiopian	1984-1985 CE	1 million
Somalian	1991-1992 CE	300,000
North Korean	1994-1998 CE	3.5 million

As the above list shows, some parts of the world are more prone to droughts through climatic aberrations such as late or no rains, locusts, floods or heavy rain falls. Frequently, lack of logistic support and governmental mismanagement have compounded the existing dire

situation. Occurring over a much longer period compared to other natural disasters, famines have the potential to kill a very large segment of the population.

Other Natural Disasters

Heat waves, blizzards, avalanches, landslides, limnic eruptions (expulsion of carbon dioxide from lakes), wildfires and non-cyclonic storms also take significant toll on human life and property. However, their impact by comparison is rather limited.

The 2003 heat wave in Europe was responsible for the death of some 70,000 persons and the summer of that year was the hottest since 1540. The Russian Heat wave of 2010 is believed to have killed some 56,000 persons. Even the United States' heat wave of 1988 took anywhere from 5,000 to 10,000 lives.

Although avalanches are relatively restricted in their area of destruction, the three worst ones in history still caused fatalities in the thousands. The **Tyrolean Avalanche** of 1916 in the Alps led to the death of some 10,000 persons; the **Huscaran Avalanche** of 1962 in the Peruvian Andes caused some 4,000 deaths; and the **Huscaran Avalanche** of 1970 in Peru took the lives of some 20,000 people.

Comparatively speaking, snow blizzards have been less deadly with the two worst ones being the **Sweden-Norway Blizzard** of 1719 that took 3,000 lives and the **Iranian Blizzard** of 1972 that was responsible for some 4,000 deaths.

ANSWER TO THE OBJECTION

Natural disasters do take an extremely heavy toll on human life, property and social welfare. Frequently, the tragedies are compounded by lack of logistic support and downright mismanagement of the governments. Therefore, the question is naturally raised as to why a

benign Providence allows such natural disasters to take place at all that bring great misery, suffering and loss of life in their wake.

We live on a Dynamic and Dangerous Planet

The simple answer to this question is that we live in a dangerous world. Even after more than four billion years of its formation, our earth is still extremely hot inside where the thermal energy drives the movement of crustal plates, the eruption of volcanoes and the triggering of earthquakes. Moreover, the atmosphere of the earth is delicately balanced but subject to the laws of nature that can cause hurricanes, rainstorms and sea surges. Any aberrations in the normal weather pattern will lead to crop failures and resultant famines.

All activities that take place inside the earth or on its surface are the result of simple cause and effect principles based on physics, chemistry and biology. As long as these principles are in action and we keep residing on a dynamic planet, we would continue to face such challenges of natural disaster. There is no way out of it. Either the Omnipotent Creator should suspend the laws of nature or put us on a piece of land with little dynamism.

One reason that the natural disasters take such a toll on human life is because we refuse to live on quieter parts of the earth that are generally free of such calamities. We refuse to move away from potential disaster areas for reasons of greed, emotional attachment or simple laziness. In some situations such mass migrations may not be allowed by our governments in which case the fault rests more with us than with the Creator. Many persons who fall victim to earthquakes know that they are living in a seismically active area (Japan and San Francisco are typical examples). Similarly, people merrily live in the paths of hurricanes and cyclones and in lowland areas that are prone to flooding. Many farmers happily cultivate along the fertile slopes of volcanoes. Bangladesh and Bengal have probably seen more casualties from cyclones than any other region in the world. Yet, people are happy living in those areas. Similarly, China and India have likely seen the worst famines in history yet their people refuse to move out to other regions.

Thus, a great many people in the world are voluntarily putting themselves in harm's way for one reason or another. Human nature is such that we are willing to take great risks, believing that the calamity will not touch us. For example, since the day automobile was invented until 2013, some 3.6 million persons have lost their lives in auto accidents in the United States alone. Annual fatalities in automobile accidents reached a peak of 54,500 in 1972 and are declining ever since due to improvements in automobile designs and safety regulations. Nevertheless, in the last available statistics for 2013, some 32,700 persons lost their lives in automobile related accidents in the United States.

A similar case can be made for aircraft accidents, industrial accidents, and collapse of buildings, bridges and other civil structures. For one reason or another, we human beings are willing to take what we call 'calculated risks' and frequently suffer because something goes wrong.

Thus, living on a dynamic and disaster-prone planet is just another example of our root psychology. As we have progressed in our science, technology and the sophistication of our social institutions, we have begun to place greater emphasis on the sanctity of individual human life. This is evident by the statistics that show that the lives lost due to human actions, wars, diseases and natural disasters are much lower on a per capita basis in the developed part of the world than say in third world countries. Although problems have not been completely solved in the first world countries either, the death toll from disease and disasters has been brought to acceptable levels.

It is not easy to imagine as to what the Creator could have done to eliminate all diseases and natural disasters and yet keep a large population of humans happy and occupied. The example of the Biblical Garden of Eden comes to mind but many of us would find some issue even with that quaint and picturesque setting. The lack of injury, death and challenges would make life dull and unexciting even in Eden.

Chapter 4
CONCLUSIONS

The Issue of Evil

There is no disagreement on the fact that evil does exist in the world and is perpetrated by the hand of man. Though diseases and natural disasters do cause great suffering, they are not evil—at least not in the sense that we ordinarily use this word to mean morally wrong, wicked, depraved, offensive and disgusting acts.

Of all the animals inhabiting this planet, human species is the only one that can and does act wickedly. While other animals may kill to eat or remove the threat, we can kill just for the fun of it. Furthermore, many of us do it while knowing very well that the act is immoral and wrong. Besides the actual killing of human beings, our wilful acts have caused great suffering in the form of mass displacements, poverty, hunger, and depriving people of their rights to healthcare, education and shelter.

In Chapter 1, we invoked the premise of human Free Will to explain the wicked actions of man. An argument has often been raised by the atheists that could a benevolent God not grant Free Will to humans in such a way that they would always choose to do good. Apart from the fact that we may be running into some sort of a paradox with this line of argument, it completely ignores the reality of what being human really means.

We are truly a very unusual species on earth. We may kill thousands of people in battle but still shed a tear at the death of a favourite pet. We may raid and rob an entire village but then give away our last piece of bread to a hungry dog. We may fight for power and riches and then simply walk away from all our gains to wander in the desert like an ascetic. No one really understands the ways of man—least of all man himself.

We are the most complex and paradoxical species that has ever existed on this planet. The way we have progressed over a geologically short period, it is obvious that we are headed towards great heights in the fields of science, arts and spirituality in the long run. Our scientists, our artists

and our prophets have shown us what is possible when we devote our minds to these pursuits. It is up to us as to what we make out of our findings and achievements.

A question is often raised that when all is said and done with respect to the various objections and answers, was Man really *destined* to suffer in God's grand scheme? The obvious answer is 'Yes', as we do see man suffering as a consequence of human evil, diseases and natural disasters. What we have attempted to do is to place the notions of evil and suffering in their proper perspective and tried to demonstrate that they are not only a necessary accompaniment of our existence but also have a useful place in the universe

Evil in the eyes of Philosophers and Theologians

Since the day Epicurus raised the issue as to why a merciful God allows evil and suffering in the world, numerous scholars and many creeds have tackled this subject in a number of ways. The question of evil and suffering is raised largely against the theists who believe in an all-powerful and an all-merciful God. The atheists simply accept the existence of evil and suffering, explaining them away as the reality in this world.

Some people have even suggested that God is neither all-powerful nor all merciful but contains these attributes to a limited degree. While this may help somewhat with the removal of the contradiction, it raises other, much more serious questions, as to the attributes of God and what is His role in the universe. A God with limited powers is obviously no good to many people.

Some people have downplayed the severity of suffering in the world calling it simply an illusion. The Portuguese-born Dutch philosopher, Baruch Spinoza (1632-1677), takes a similar approach and holds that good and evil in the world are only relative concepts and that there is no such thing as intrinsic good or evil.

Gottfried Wilhelm Leibniz[9] (1646-1716) tackled the issue in a somewhat different way. He argued that God has created a real and not an imaginary world. This real world is based on certain physical laws and principles of cause and effect. In this real world, if someone strikes another person, he is going to suffer pain. God in this case could either allow the cause and its consequent effect to take place or, alternatively, freeze the evil effect of the strike. In that case, the world would not behave as it does. According to Leibniz, the present world is the best of all possible worlds. Anticipating a challenge to this world being the best of all possible worlds, Leibniz argued that it was perhaps naive for people to *assume* that this world was created only for their benefit and happiness. With our limited knowledge, he argued, we cannot determine if there was not some other greater good that evil served.

In modern times, the issue of evil has been discussed by many philosophers such as William Rowe (1931-2015), Gregory Scott Paul (b. 1954) and Paul Draper (b. 1957).

To remove the apparent contradiction, some people do not accept that God is indeed all-powerful. This has been the approach taken by Rabbi Harold Kushner (b. 1935) in his book, *When Bad Things Happen to Good People*. He accepts the fact that God is merciful but rejects His attribute of Omnipotence.

According to the **Zoroastrian teachings**, all evil and suffering in the world is caused by Angra Mainyu—or the Evil Spirit. Assisted by a host of lesser entities, Angra Mainyu spreads evil, untruth, torture, torment, hostility and disorder in the world. Fighting this evil force is the good lord Ahura Mazda. In this world based on duality—good versus evil—man is expected to side with the good lord and thus triumph over evil. According to the Zoroastrian creed, the Evil Spirit is not created by the good lord, Ahura Mazda, but exists independently. Thus, there is no contradiction in

[9] Leibniz is credited with the production of the binary number system, invention of calculating machines and discovery of calculus (independently along with Isaac Newton). He also stated the physical law of conservation.

Zoroastrianism in the existence of the merciful Ahura Mazda along with evil and suffering in the world.

Hinduism openly recognises suffering and inequalities among people. It is obvious that some are talented and some not; some are weak while some are strong; some virtuous and some evil; some are healthy and some ailing; and some prosperous and some indigent. In the Hindu *dharma* (the way of living), good and bad fortunes are part of one's *karma* or fate which in turn depends on all the acts accumulated over previous incarnations. Natural disasters such as earthquakes, tsunamis, floods and volcanic eruptions—that are external to the human beings—are considered play of the gods, or *lila*, and are deemed mysterious and beyond human comprehension. Thus all suffering, internal as well as external, is an integral part of God's creation. Furthermore, Hinduism proposes that the present times belong to the Kali Yuga, an age of great suffering, disorder and lawlessness prior to the final destruction of the worlds and the birth of another world order.

In the **Buddhist creed**, *dukkha*, or suffering, is part of human existence and cannot be removed in this world. Buddhism considers all aspects of living as suffering. Thus, birth, aging, disease, death, separation, disharmony, discomfort, irritation, friction, anguish and anything that is unpleasing, are all facets of the underlying *dukkha*. Suffering is universal and omnipresent and its root cause is human "desire". Thus, to a great extent, the existence of suffering in Buddhism is a personal perspective arising from one's desire for worldly pleasures. The removal of suffering in Buddhism is a low-level objective since its opposite, happiness, is regarded only as transient and selfish. True riddance of suffering in Buddhism comes only when one finds escape from the otherwise perpetual wheel of births and rebirths.

In the **Shinto faith** of Japan, the concept of evil is expressed in terms of "pollution" and "impurity". *Tsumi* (literally meaning pollution), can be physical, moral or spiritual and is caused by evil spirits. *Tsumi* includes

natural disasters, human mistakes and diseases. The Shinto way advocates purifying rituals to get rid of the bad effects of *Tsumi*.

In the teachings of **Taoism,** evil is considered as a necessary counter point to goodness and is part of the principle of Yin and Yang. Thus, the absence of beauty is ugliness and absence of good is evil. The Tao philosophy encourages one to maintain a happy balance or equilibrium between the two polarities.

In the **Confucian** philosophy, evil and suffering are part of human existence and cannot be avoided. One is thus directed to learn from them. Much of the philosophy regarding good and evil was developed by Mencius (371-289 BCE) who was the most well-known follower of Confucius. According to Mencius, man's original nature is good but this original nature becomes evil if his wishes are not fulfilled. Thus, like in Buddhism, evil is somehow related to human desire.

According to an oral tradition in **Judaism**, evil is necessary in the world so that its redemption could be affected by the awaited Messiah. Similarly, the Talmud says that every bad thing is in reality for some ultimate good and that we must praise God for all things that we consider bad just as we praise Him for all things that we consider good. The issue of suffering took on a special significance in Judaic faith just after the Babylonian exile. Since then, the issue has been discussed among the Jewish people every time they have suffered a major setback. Historically, evil and suffering in the Jewish faith have been attributed either to human sin or to evil forces such as Satan and demons.

The **Christians** explain the existence of pain and suffering as the consequence of the Original Sin committed by Adam and Eve. They were tempted by Lucifer who rebelled against the orderly world existing at that time. In the Christian theology, angels are given Free Will and thus the ability to act rightly or wrongly. Therefore, evil came into the world through Satan. Evil is not *created* by God but is a perversion of His creation. Many Christian theologians and philosophers have ascribed the

occurrence of natural disasters to the work of fallen angels. The Christians believe that all pain and suffering shall end one day and people who have believed in Jesus Christ will live a happy and eternal life.

Some philosophers, such as Irenaeus of Lyons (130-202 CE) and more recently John Harwood Hick (1922-2012), have argued that evil and suffering in fact promote spiritual growth and character building. This line of thinking is also echoed in the well-known adage, "Suffering is good for the soul." This philosophy holds that one needs to suffer to bring true sincerity and fervour into one's prayers and to properly attain nearness to God.

The Christian theologian and philosopher, Saint Augustine (354-430 CE), advocated that evil had no existence of its own and was simply the absence of goodness. Thus, ignorance could be considered simply the absence of knowledge; disease, the absence of health; and cruelty, the absence of compassion.

The political economist and demographist, Thomas Robert Malthus (1766-1834), has argued that evil motivates human beings towards greater creativity and production. Without evil in the world, he asserts, humanity would not need to strive and make progress in its knowledge and technology. Much of today's science and technology is focused on building earthquake-proof structures, fighting diseases, fixing congenital ailments, predicting hurricanes and volcanic eruptions, controlling floods, and generally alleviating human suffering.

Some creeds have proposed that evil and suffering in this world shall be amply compensated for in the afterlife. This is the view generally held by the Christians and the Muslims.

Another explanation that has been provided by many theologians for the existence of evil is that it is in fact for the purpose of attaining greater good. They argue that evil and suffering in the world teach us a moral lesson and make us more grateful, patient and persevering. It is commonly suggested that since we cannot fully understand the ultimate plan of God, we cannot assume that evil and suffering do not have some yet unknown role to play in the scheme of things.

Islam's answer to Evil and Suffering

Within the theistic framework of the universe, the question of evil and suffering has been addressed by all religions in their own way. Here, we would briefly review the Islamic perspective on this issue. In the history of Islam, the question of evil and suffering has not become an issue, as it has in Christianity or in post-Holocaust Judaism. There is, however, ample discussion of the subject in the Holy Qur'an. Very few Islamic scholars or philosophers of any note have tackled this issue in an exhaustive manner. The early discussions on this subject by the Mu'tazilite and Asha'rite schools appear naive by the standards of modern logic. Largely, the presence of evil and suffering has been taken for granted by the Muslims as something that God has created and their presence has never been seriously questioned. While many Christian scholars used the apparent contradiction between the existence of evil and the invoking of a merciful God to reject the latter, the Muslims have mostly tried to reconcile the presence of evil and suffering with the benevolence and omnipotence of God.

One modern scholar who has addressed this issue in considerable detail is Haḍrat Mirza Tahir Ahmad[ra] (1928-2003), the Fourth Khalifa of the Ahmadiyya Muslim Jama'at. In his book *Revelation, Rationality, Knowledge and Truth* (1998), an entire chapter is devoted to The Question of Suffering. He argues that evil and suffering are not something that have been created independently but merely represent the absence of 'good' and 'pleasure'—much like the shadow and darkness represent the absence of light. According to him, suffering could only be considered objectionable if it was created as an independent entity with no useful and meaningful role to play in the scheme of things. He notices that during the long evolutionary struggle, life has tended to avoid pain and suffering which have played key roles in driving organic evolution on earth.

Haḍrat Mirza Tahir Ahmad[ra] also argues that evolution is not only directed towards producing a fitter species but also one with a higher level of consciousness. Thus, suffering and pleasure are more heightened for the more evolved forms of life, which have higher level of consciousness. The lower forms of life—such as worms and insects—appear to have a lower

sensitivity to both suffering and pain compared to say the mammals and the primates. Thus, pain and suffering appear to be a natural accompaniment of the evolution into higher forms of life on earth. Despite the highest level of suffering in man, he is not prepared to trade his place in the animal kingdom with any other species. It is also a fact that despite the presence of suffering, all animals cling to life and try to avoid death although it may end their suffering.

Haḍrat Mirza Tahir Ahmad[ra] summarises the role of suffering in the following excerpts from his book:

> "Without the taste of suffering or an awareness of what it means, the feeling of relief and comfort would also vanish. Without an encounter with pain and misery, most certainly, joy and happiness would lose all meaning. Indeed the very existence of life would lose purpose, and the steps of evolution would stop dead in their tracks.
>
> "The struggle between life and death, which produces suffering, is also the means of creating pleasure. It is the primary motivating force, which fuels the carriage of evolution to move forward eternally.
>
> "Diseases, defects and shortcomings all have a role to play in effecting improvement.
>
> "Health and disease, ability and disability, fortune or misfortune, congenital advantages or disadvantages are themselves but indispensable to the grand scheme of things, in which they play a causative role.... Suffering, like happiness, is an essential prerequisite for life to evolve and in the course of evolution it is not related to the phenomenon of crime and punishment at all. Suffering in its causative role produces a wide spectrum of useful effects, which amply justify its existence.
>
> "Suffering has been a great teacher, cultivating and culturing our conduct. It develops and refines sensibilities, teaches humility and in more than one way, prepares humans to be able to turn to God. It awakens the need for search and exploration and creates that necessity which is the mother of inventions.

> "Thus the question of apportioning blame for the existence of suffering upon the Creator should not arise. Suffering, to play its subtle creative role in the scheme of things, is indeed a blessing in disguise.
>
> "The secret of all scientific investigation and discovery lies in a constant quest for the relief of pain and discomfort. The motivation behind scientific exploration and discovery is based less on a desire to gain luxuries than on a need to escape pain.
>
> "For those who believe in God, the Creator, there should be no problem either, because they see enough direction, balance and purpose in creation, to submit to the wisdom of the plan in its totality."

With respect to the wisdom behind evil and suffering, many Muslim scholars have presented the case of Moses' spiritual journey[10], supposedly with Khiḍr. In this journey, Khiḍr slays an apparently innocent young boy. When Moses questions the wisdom of such an act, Khiḍr advises him that this boy would have grown up to be rebellious. This allegorical account of Moses and his companion also provides Islamic confirmation of the principle of an apparent act of "evil" eventually leading to greater good. An analogy in this respect can be provided by a surgeon who amputates a badly infected finger to save the hand or arm. Anyone who is not fully aware of the reason behind the surgeon's act would assume that the surgeon is committing an evil when cutting off the finger while in fact he is saving the hand, arm or the life of the patient—a greater good.

The purpose of Man's creation in Islam

The entire basis of the question as to why there is so much evil and suffering in the world in the presence of a benevolent God rests on the premise that the sole purpose of creating Man is to make him happy. This, however, is not the perspective in Islam *per se*. After stating that the

[10] The Holy Qur'an, 18:61-83.

underlying purpose of creating man is that he should worship God[11], the Holy Qur'an warns man of trials and tribulations[12] to test his faith. It also goes into considerable detail in laying out the role and responsibility of man on earth.

In the allegorical account of man's creation in the Holy Qur'an, God says to the angels that He is going to appoint a **vicegerent** on earth. While the angels seem to question such wisdom—pointing out to all the blood that man shall shed—God advises them that He knows what they know not[13].

Interestingly, both predictions—that of the angels and that of God—were in fact correct. No doubt man was going to commit disorder and shed blood of other people; but the inherent wisdom behind the creation of man was not fully apparent to the angels at the time. While angels only carry out obedience, man is endowed with Free Will and thus his obedience and righteous conduct are more meritorious. Within the human beings, the person of the Holy Prophet Muhammad[sa] ranks as the ideal and perfect example.

The appointment of humankind as the vicegerent of God bestows perhaps the greatest honour upon our species and carries in it a grand prophecy. The question arises as to what is the role of humankind and

[11] "And I have not created the Jinn and the men but that they may worship Me." 51:57

[12] "And We will try you with something of fear and hunger, and loss of wealth and lives, and fruits; but give glad tidings to the patient, who, when a misfortune overtakes them, say, "Surely, to Allah we belong and to Him shall we return." 2:156-157

"...We prove you with evil and good by way of trial..." 21:36

Also see other references on this subject in the Holy Qur'an: 2:50; 2:215; 3:143; 3:187; 67:3 (for full English text, see References at the end of the book)

[13] "And when thy Lord said to the angels: 'I am about to place a vicegerent in the earth,' they said: 'Wilt Thou place therein such as will cause disorder in it, and shed blood? — and we glorify Thee with Thy praise and extol Thy holiness.' He answered: 'I know what you know not.'" 2:31

what kind of empowerment is involved when humankind acts as the vicegerent of God? The Supreme Being of the universe possesses infinite powers. He is the Creator and the Destroyer; the Giver of Life and the Bringer of Death; the Nourisher, the Provider and the Protector. He is the Honourer and the Abaser; the Constrictor and the Expander; the Mighty and the Merciful. In the appointment of man as God's vicegerent, God has empowered him in all such attributes—of course to the extent that man is capable of exercising them subject to his own human limitations.

It would appear that for nearly twelve centuries after the Holy Qur'an was revealed, humanity remained nearly oblivious to its role as God's vicegerent in the temporal sense. The sphere in which mankind could exercise its benevolent and destructive powers was rather limited. It could indeed kill many people or animals but it could never conceive of being able to destroy an entire species; it could lay an entire field to waste but it could not extend such malevolence to the entire country or continent. Thus, both the benevolent and malevolent acts of humanity remained limited to rather small spheres.

The last hundred years or so, however, have completely changed the existing status quo. Humanity's scientific and technological progress has suddenly given it immense powers to be used for good or for bad purposes. Its destructive powers are not limited to simply burning down a field but now allow it to make entire continents uninhabitable through the thousands of nuclear devices possessed by many nations. Its powers to pollute are not confined to a single well or pond or canal but in fact extend to destroying large aquifers in the ground, making vast lakes undrinkable, and contaminating the oceans with non-degradable waste. Our powers to kill are not limited to a few hundred or a few thousand animals but we have actually sent a number of species to the path of total extinction and our lifestyle is endangering many more that depend upon us for their very survival.

We have gained immense temporal powers on this earth and yet our progress in the fields of science and technology is only in a stage of infancy. In another century, our ability to wreak havoc on this planet will increase manifold. One simply shudders at the thought as to what our capability might be, say, in a thousand years. God is not simply asking us

to be a good citizen on earth—to share our possessions and resources with other life forms. God, in fact, is asking us to be a good *custodian* of this planet—to act in His name and carry out His work as His appointed vicegerent on the planet. For this purpose, He has made the forces of nature subservient to man[14]. To use a cliché, exercise of great power requires use of good judgment and great wisdom. Unfortunately, our record to date is not very commendable.

The numerous attributes of God mentioned in Islam encourage us to emulate these traits and to be like Him when acting as His vicegerent. Thus, it is no coincidence that the three attributes of Nourisher, Gracious and Merciful outnumber all other attributes combined together in the Holy Qur'an. As vicegerent of God on earth, humanity is expected to provide for and nourish all other life forms under its custodianship and deal with them in a merciful and kind manner. In this regard, we are not only our brother's keeper but also the warden of all living things on earth. Not only this, but our responsibility for stewardship also extends to the environment in general which in turn provides proper habitat to earth's vast flora and fauna.

Purposeful Diversity in Nature

Under the heading of "Rooting out Emotional Disorders" in Chapter 2, we had stated that the only way God could have removed feelings of envy and avarice among people would have been to make all human beings

[14] "And He has pressed into service for you the night and the day, and the sun and the moon; and the stars *too* have been pressed into service by His command..." 16:13

"Hast thou not seen that Allah has subjected to you whatever is in the earth, and the ships that sail through the sea by His command?" 22:66

"Have you not seen that Allah has pressed for you into service whatever is in the heavens and whatever is in the earth, and has completed His favours on you, both externally and internally?" 31:21

See additional references on the above subject: 14:33-34; 16:15; 29:62; 45:13-14 (for full English text, see References at the end of the book).

alike in their traits, abilities and possessions. One could also argue that this is also required by the principle of universal justice. However, the Creator in His wisdom decided to do otherwise and thus imparted great variety and diversity in nature. It is to this act that the Holy Qur'an refers to in 5:49 in the following words:

> "And if Allah had enforced His will, He would have made you all one people, but He wishes to try you by that which He has given you. Vie, then, with one another..."

The same theme is presented in verses 11:119 and 16:94[15]. Thus the diversity that exists among human beings—and by extension, among other species—is purposely built in nature to drive the process of evolution. Without such diversity, the process of evolution will cease to operate and all life forms will remain static without any progress.

Trust in God

In the Islamic philosophy, one is required to believe in the Unseen and have full trust in God as the Wise Creator of the universe. One is quite aware of the fact that there will be trials and tribulations in life but patience, perseverance and constant beseeching unto God are expected to lessen the magnitude of any such adversities. The purpose of life within the Islamic philosophy is to find God in this very existence. On this journey of love unto the Beloved, there are no complaints or recriminations. All that one comes across on this way is from the Hand of the Beloved—be it joyous or be it laced with sorrow.

The workings of Nature—the actions of God—are not all within our grasp to comprehend. We have barely scratched the mountain of knowledge and need to realise that the workings of this universe are far

15 "And if thy Lord had *enforced* His will, He would have surely made mankind one people..." 11:119

"And if Allah had *enforced* His will, He would surely have made you all one people..." 16:94

more complex and mysterious than we could possibly imagine. Our place is not to criticise but to learn. In time, many mysteries shall be opened upon us, just as many have already been unfolded to date. Thus, patience and trust are the keys in this respect.

As to where we are headed in space and time, we have no definite idea. Moreover, why should we — so soon after opening our eyes just yesterday. However, one look at the universe—at its immensity and complexity, and at its growth and evolution—should put us at ease that whatever is happening out there is not just a trivial pursuit of some idle Mind.

It has taken us a long time to learn this simple fact that we are now the custodian of this planet earth. An immense responsibility rests in our hands to discharge this duty correctly. As time passes by, our knowledge and technical knowhow is sure to increase. As to what else awaits for us in the distant future, only time shall tell. Once again, patience and trust are the keys.

Importance of reforming our society

We agree that great evil has been perpetrated in history by man and great suffering has come about from the hand of man and from diseases and natural disasters. However, the solution to this problem of evil and suffering does not rest solely with the Creator but also with ourselves.

We human beings are quite capable of removing much of the evil and great amount of suffering from the world. What is needed is our will to do it. We continue to remain under the influence of prejudice and bigotry and impervious to justice and impartiality. We continue to focus on our own happiness and ignore the needs of others. We continue to seek dominance over others instead of reaching mutual accord and harmony. As long as we keep neglecting the principles of universal justice and absolute human rights, we would remain divided and unable to tackle our true enemy—evil and injustice, misery and suffering.

Blaming all our ills on an invisible Creator is obviously the easy way out—it is all His fault... we are just innocent victims of His unjust decisions and policies.

Being law-abiding, peace-loving and good citizen is not only an individual accountability but also a collective responsibility. Our status as individuals is completely dwarfed by our collective position as the most advanced species on earth. If our brother errs and causes evil and suffering in the world—as is amply evident from our history on this planet—we all share in his vile acts, at least indirectly. In this context, we are definitely our brother's keeper—and he, ours! While much of the effort in the past has been devoted to improving our individual selves, we need to bring the same fervour in improving the conduct of our societies. Much damage has been done in the past by unjust institutions such as unscrupulous monarchies, ruthless dictators, deceitful governments, hypocritical theological groups, crooked politicians, fraudulent businesses and corrupt leaders. We need to make sure that the likes of Hunnic Empire, Mongol hordes, King Leopold the Second's colonial empire in the Congo, the Nazi party in Germany, the Bolshevik revolutionaries in the USSR, the fascist dictatorship of Benito Mussolini in Italy, the Khmer Rouge in Cambodia, the South African Apartheid, and Al-Qaida and ISIS in the Middle East do not blossom in our societies again.

Ideal societies are not formed by simply hurling some banner or moving some magical wand in the air. They are formed by removing all such elements from our societies that weaken the foundations of our social institutions. These elements include lack of universal justice, discrimination, prejudice, belittling other groups, depriving people of their basic human rights and insulting them, their gender, their colour, their race, their faith and their religious personalities. Irrespective of how high we stand on the pedestal of modern technology, the calibre of our society will always be judged by the degree to which we show sympathy, respect and compassion to our fellow being—of whatever creed, colour or ethnic background he or she may be.

Greatness of Man in the face of evil

The greatness of man lies in doing good while surrounded by evil and suffering. Even a cursory look at our history will show that we have produced a large number of truly great people that are a credit to our

species—people unto whom great injustices were done but they forgave their enemies; people who voluntarily forsake their food so that others, who were in greater need, could partake of it; people on whom abuses and invectives were heaped but, in turn, returned only blessings and prayers. If there was no Free Will and all the humans acted the same way, would the world have seen the likes of Gautama Buddha[as], Socrates[as], Jesus Christ[as], Muhammad[sa], Mahatma Gandhi, Martin Luther King Jr., Mother Teresa, Dalai Lama, Nelson Mandela and Malala Yousafzai? Light can be appreciated only in the presence of darkness; riches have value only in the presence of poverty and goodness shines only in the presence of evil.

Man is so far advanced in his abilities compared to other animals that it is not quite clear why it is so. Even during the Stone Age, our brain capacities were the same as today. It was possible to have taken a Stone Age child and made him into a Michelangelo—or a Shakespeare—or a Newton—or an Einstein. Why were our brains so advanced when we used them only for hunting and gathering?

Our true progress has just begun. Until two hundred years ago, our life style was pretty much the same as in the past two thousand years. However, our knowledge, our arts, our sciences and our technology have literally exploded over the past couple of centuries. And not only that they have increased in absolute sense, but the very rate of new discoveries and inventions has also skyrocketed in an exponential manner.

Our genus, *Homo*, separated from the mainline of primates only 2.8 million years ago. With such rapid increases taking place in our knowledge, would anyone care to guess as to where we might be in the next 2.8 million years? Alternatively, let us stretch our imagination a bit more and ask as to where we might be in another 100 million years?—or in a billion years? Let us not underestimate the wisdom behind the creation of this universe, the formation of this earth and the appearance of a species called *Homo sapiens*. Let us not rush in and say that things should have been this way instead of that and that the Creator should have opted for a different creation. Below are some very appropriate lines in this context from *An Essay on Man* by the English philosophical poet, Alexander Pope (1688-1744):

He, who thro' vast immensity can pierce,
See worlds on worlds compose one universe,
Observe how system into system runs,
What other planets circle other suns,
What vary'd Being peoples ev'ry star,
May tell why Heav'n has made us as we are.
Then say not Man's imperfect, Heav'n in fault;
Say rather, Man's as perfect as he ought:
His knowledge measur'd to his state and place;
His time a moment, and a point his space.
Go, wiser thou! and, in thy scale of sense,
Weigh thy opinion against Providence;
Call imperfection what thou fancy'st such,
Say, here he gives too little, there too much:
Destroy all creatures for thy sport or gust,
Yet cry, if Man's unhappy, God's unjust;
If Man alone ingross not Heav'n's high care,
Alone made perfect here, immortal there:
Snatch from his hand the balance and the rod,
Re-judge his justice, be the God of God!

We have barely understood the workings of this universe yet we are conceited enough to start passing judgment on the way things are. Should a toddler be passing judgment on Leonardo da Vinci's *Mona Lisa* and the *Last Supper*? Or a second-grader finding faults with Michelangelo's *David* or Alexandros' *Aphrodite*? Or a five-year old criticising the *Sonnets* of Shakespeare? Do we have any moral right to pour scorn on the mechanism of Patek Phillipe's *Grandmaster Chime* with no knowledge of watch making whatsoever? If not, then know that the universe is a trillion times more complex, amazing and wonderful than the most complicated watch movement ever designed.

On the open-ended and infinite scale of knowledge, we stand at level ten at best. Humility demands that we wait another million years or so before opening our mouths to criticise things around us. Let us not be

brash like a first-grader who, after spending hardly a year in school, believes that he knows everything that is there to know.

Disasters are an inherent aspect of our universe

As stated earlier, we live in a dangerous universe. The diseases and natural disasters that commonly befall humanity are nothing compared to potential calamities that *can* visit us in the future. If the history of this planet is any guide, we should be expecting some super disasters that would require all our wits and intelligence to evade their devastating effects and preserve our species.

It is estimated that asteroids with a diameter of 50 metres strike earth once every thousand years. It was such an event that caused the explosion at Tunguska, Russia, in 1908. As the striking body disintegrated above the surface of the earth, it only released energy equivalent to 30 mega-tonnes of TNT. Meteorites of one kilometre diameter strike the earth every 500,000 years. Larger asteroids with a diameter of 5 km hit earth every 20 million years. The Cretaceous-Tertiary extinction event that wiped out the dinosaurs was caused by the impact of a 10 km object.

Then there is the possibility of a super-volcano — an eruption that releases more than 400 cubic kilometres of ejecta. The Lake Toba event that took place some 75,000 years ago in Sumatra, Indonesia, put out some 2,800 cubic kilometres of ejected material. It caused a global winter for 6-10 years and wiped out a large part of the Homo population. The Yellowstone "hot spot" in Idaho, USA, has led to several eruptions over the last 6 million years. The last eruption in this lava field known as the Lava Creek Eruption took place some 640,000 years ago and ejected some 1,000 cubic kilometres of material. All super-volcanic eruptions have the potential to not only cause wide-scale fatalities and destruction but also materially impact our civilisation and perhaps the survival of our species by blocking out the sun's light.

Another potentially deadly phenomenon is the solar flare that releases as much as 160 billion megatons of TNT equivalent in energy at the surface of the sun. Frequently, these flares are accompanied by Coronal

Mass Ejections (CME) in which billions of tonnes of electrons, ions and atoms are shot out into outer space. These CMEs have the potential to render great damage if they come our way. According to NASA, a large and potentially damaging CME barely missed the earth on July 23, 2012.

Evolution — the most fundamental process in the universe

Evolution is perhaps the most fundamental process in the universe. After the seed of creation was sown with the "Big Bang", the present state of the universe owes its existence entirely to the course of evolution. The original nature of the primordial matter and the set of physical laws in place, have shaped the universe into galaxies, star clusters, black holes, red giants, white dwarfs, super novae, planets, asteroids, comets and other astronomical objects.

For a long time it was thought that the fundamental unit of matter is the atom. Research, however, indicated that the atoms themselves were made up of Protons, Neutrons and Electrons. Further research has shown that Protons and Neutrons are made up of a variety of still smaller particles called Quarks. Likewise, the Electron belongs to a class of particles called Leptons with several other varieties beside the Electron.

Modern research indicates that the apparent diversity of matter is eventually resolved into perhaps a single unit or particle—call it string or super-string. It is the combination of this fundamental particle in various shapes and forms that can give rise to practically everything in this universe. The same fundamental particle gives rise to not only atoms and molecules but also planets, stars and galaxies. Furthermore, the same fundamental particle can give rise to life forms ranging from viruses and bacteria to mammals, primates and humans.

Thus, the rise of everything in this universe—including all inanimate and animate objects—takes place through the process of evolution where right conditions produce not only gas clouds, suns and planets, but also every kind of life—on earth and likely on other planets in the vast universe. Just as the matter in the universe can be traced to a single

fundamental unit, all forces in the universe will likely be unified in a single entity. There is thus great elegance in how nature operates.

Everything in this universe is the consequence of how this great evolution is taking place at cosmic scale. Creation and destruction, life and death, happiness and suffering — these are all natural consequences of the cosmic process of evolution. For whatever and yet unknown reason, this is the way our universe has been created. To hope for a universe without evil and suffering is in fact to hope for utopia or an entirely different universe—right from the beginning. To expect the Creator to keep the universe as it is and simply remove evil and suffering from it, is to invoke contradictions. Thus, our place is to try to understand the wisdom that lies behind the way this universe has been created and how it has been programmed to evolve in the way that it does.

Chapter 5
THE CASE FOR GOD

Frequently, the question as to why does a Merciful God allow such evil and suffering in the world, is not really put forward to prove that God is merciless but to imply that God does not really exist.

In some form or another, every religiously inclined person believes in the existence of God. Entirely for linguistic reasons, different peoples of the world have used different words for such Supreme Being. Thus, He is called Brahman in Sanskrit, Ahura Mazda in the Avesta language of the Zoroastrians, Yazdān and Khuda in Persian, Yahweh and Elohim in Hebrew, El in the Aramaic language of Jesus Christ, Theos in Greek, Deus in Latin, Allah in Arabic, Waheguru in the Sikh faith, Dieu in French, Gott in German and, of course, God in English. It must be appreciated that these are simply different appellations for the same Ultimate Reality. Thus, Allah is not a tribal god of the Arabs but the Arabic equivalent of the English word 'God'. It is for this reason that the word Allah is used in the Old and New Testaments when they are rendered into Arabic. In fact, the word "Allah" existed among the Arabs long before the appearance of Islam.

Any discussion about God must note this fact that the word means different things to different people and in different religions. In the present context, we use the word "God" for *the* Supreme Being in the universe above Whom none other exists with like powers and attributes. In our present context, the person of God implies the Creator Who is Almighty, All-knowing and Infinite. Most importantly, He is uncreated. Anything that is created cannot be the Ultimate Reality in the universe. In monotheistic religions, God is obviously One.

The Islamic concept of God is succinctly presented by the Promised Messiah and Mahdi, Haḍrat Mirza Ghulam Ahmad[as] (1835-1908), in his book *Lecture Lahore*. He writes:

> "He is the Originator of all creation and is the fountain-head of all grace. He is the Master of all recompense and everything returns to Him. He is near and yet far; and He is far and yet near. He is above all, but it cannot be said that there is something below Him. He is more hidden than everything else is but it cannot be said that there is something more manifest that Him. He is Self Existing in His Being and everything is alive through Him. He is Self Existing and everything exists through Him. He is All Sustaining and there is nothing that supports Him. There is nothing that has come into being on its own, or can live without Him on its own. He comprehends everything but it cannot be said what is the nature of that comprehension. He is the Light of everything in heaven and earth and every light has shone forth from His hand and is a reflection of His Being. He is the Providence of the universe." (*Lecture Lahore*, pp. 9-13)

Since God is not a material object and we cannot see Him through our mortal eyes, His existence has been constantly questioned and debated throughout recorded history. Over the ages, many people have tried to prove that God exists and many others have countered with arguments that either such a person does not exist or we are totally incapable of determining His existence. These arguments — both in favour of and against the existence of God—have ranged from the very naive and simplistic to the most esoteric and convoluted. The net result of this entire debate in history has been that no mathematically or logically irrefutable proof has emerged on which everyone could agree. The British theologian, David Jenkins[16], sums up this situation very neatly when he says that:

> "No statement about God is simply, literally true. God is far more than can be measured, described, defined in ordinary language, or pinned down to any particular happening."

In fact, considering the very concept of God, it is rather naïve of us to expect that some irrefutable physical proof of God's existence should have been found over the centuries and millennia that religions have existed. God is neither an object nor physical in His nature. Even the word "Spirit"

[16] David Edward Jenkins (b. 1925), British theologian best known as the Bishop of Durham.

does injustice to His person since it, too, carries some connotations of being bound by space and time.

The increasing emphasis on rationalism and empiricism over the past three centuries has made it all the more difficult to come up with incontrovertible proofs for the existence of God. Many proofs that have been used historically for the existence of God have now been demonstrated to be either suffering from fallacies or are incomplete in some other respect. Again, it was unrealistic on our part to suppose that conventional logic would have supplied the necessary proofs about someone Who defies all physical and material constraints and is far beyond the three-dimensional world to which we are confined.

Historically, the proofs for the existence of God have ranged from the physical to the emotional. In the physical category fall the proofs that the very existence and orderliness of this universe demonstrate the presence of a Creator or God. In the emotional category is included the supposition that God is in fact too subtle to be perceived physically and can only be felt by the delicate sensitivity of the human heart.

Much of the naiveté in the earlier arguments in favour of the existence of God arises from our attempt to *know* Him through a rational analysis. God simply cannot be *known* by reason alone which, at the most, can indicate that a person with the attributes of God *might* exist. Reason cannot prove whether such a person *does* exist indeed. This idea is beautifully presented by Haḍrat Mirza Ghulam Ahmad[as] (1835-1908), who writes:

> "The being of God is hidden upon hidden and beyond of beyond and is most secret and cannot be discovered by the power of human reasoning alone, and no argument can prove it conclusively; inasmuch as reason can travel only so far that contemplating the universe it feels the need of a Creator. But the feeling of a need is one thing and it is quite another to arrive at the certainty that the God Whose need has been felt does in fact exist. As the operation of reason is defective, incomplete and doubtful, a philosopher cannot recognize God purely through reason." (*Haqiqatul Wahiy*, pp. 117-118)

It would not be surprising that being the Most Subtle Himself, it takes the subtlest of human instruments to detect God. A rational analysis

leading to the existence of God may show Him only as an impersonal Creator of this universe. By contrast, the God perceived by the human heart emerges as a friendly, caring, forgiving, merciful and loving Person. Blaise Pascal[17], the well-known 17th century French scientist and philosopher, expresses this viewpoint in the following words:

> "God is never found through reason but only perceived by the heart... the heart has reasons of which reason does not know."

This philosophy is also endorsed by Haḍrat Mirza Ghulam Ahmad[as] who writes:

> "The God of Islam is the same God who is visible in the mirror of the law of nature and is discernible in the book of nature. Islam has not presented a new God but has presented the same God Who is presented by the light of man's heart, by the conscience of man, and by heaven and earth." (*Tablīgh-e Risālat*, Vol. VI, p. 15)

Thus, the sum of all arguments to date about God is simply that His person can only be known with any degree of certainty through the medium of faith.

Man's Relationship with God

In Islamic theology, God is not an impersonal and distant Being. No intermediaries are therefore required when dealing with God. All prayers, beseeching and communication are directed to God Himself. In fact, the religion of Islam strongly encourages that we build a personal relationship with Him. This relationship begins with the perception that God is the Ultimate Reality in the universe. Then, progressing through associations that are more intimate and wherein God is perceived as a Companion and a Friend, it reaches that final point where God becomes one's Beloved. In the words of a medieval Muslim mystic:

[17] Blaise Pascal (1623-1662), the French scientist, philosopher and mathematician who is credited with the development of the theory of probability.

"No one worships God by any act more pleasing to Him than that of loving Him."

The development of a relationship of mutual love between man and God is a hallmark of the religion of Islam. In this context, it would not be wrong to say that the history of Islam is the history of the lovers of God. However, to achieve this ultimate stage of love of God, considerable striving is necessary on the part of the seeker. One has to cleanse one's self of all impurities to make one worthy of God's love. One has to remove all hatred for others and any love that one may carry for one's own self or for material objects. One has to polish the heart until all rust is removed and it shines like a mirror, capable of reflecting the light of the Beloved. Then one has to remember God every moment of one's breath. As Kabeer[18], a sixteenth century mystical poet from India, remarked:

"The breath that does not repeat the name of God is a wasted breath."

Thus, a very persistent striving is necessary on this journey unto God. It is of this constant effort that Rumi[19] refers to in his *Mathnavi*[20]:

"I'll cry to Thee, and cry to Thee, and cry to Thee,
Until the milk of Thy kindness boils over."

Although constant striving by the seeker is an absolute must on this journey of love unto the Beloved, it cannot reach fruition without special assistance. It needs help from spiritual masters in our society, and grace

[18] Kabeer (d. 1510), a mystical poet from India who combined Islamic Sufi ideas with Hindu imagery.

[19] Jalaluddin Rumi (1207-1273), one of the great mystics of Islam. He fled from Iran because of his mystical and liberal views and found refuge in Turkey. He is the author of *Mathnavi* — a collection of mystical poems.

[20] *Mathnavi* of Rumi is a six-volume poetic work of mystic love and spiritual teachings, in the Persian language.

from God Himself. Guidance is indispensable on this journey from the spiritual experts who have already travelled this road. Again, as Rumi puts it:

"Whoever travels without a guide,
Needs two hundred years for a two-day journey."

Likewise, God's grace is essential in this endeavour of the heart. Someone asked a saint, "If I love God, would God love me?" The saint replied, "If God loves you, then you would love God!" The same philosophy is expressed by Maghribi[21], a fourteenth century Persian poet, who wrote:

"No one by himself finds the path to Him
Whoever reaches His lane, reaches with His Feet."

Rumi also supports this philosophy when he writes in a couplet:

"Not a single lover could seek union
If the Beloved were not seeking it."

True love of God, however, does not come cheaply. One has to kill one's ego and show true compassion for one's enemies. One has to bear all sorts of injury and affront from the world for the sake of one's Dear. One has to estrange one's self from the pleasures and pleasantries of worldly life and focus on the fruits and rewards of one's love with the Supreme Being. Then there is also the pain and suffering coming from separation from one's Beloved that sits heavy on the lover's heart. Yet, such pain and suffering that a lover endures for the sake of one's love is more welcome than any other pleasure in life. As Rumi puts it very aptly in his *Mathnavi*:

[21] Muhammad Shirin Maghribi (1349-1408), a Persian Sufi poet who was influenced by Ibn 'Arabi's idea of 'Oneness of Being' and then propagated it. Some sources state that he was born in Tabriz and is therefore also referred to as Tabrizi in his name.

"Sweeter than this poison, I saw no drink;
Lovelier than this illness, I see no health."

The love of God brings with it a multitude of fruits. These include peace and tranquillity of mind, radiance in one's character and demeanour, and an increased acceptance of one's supplications to God. True dreams increase in frequency and the Beloved begins to speak more often. Intimations are given of future events and we obtain great insights into the strange workings of this universe. That door that was closed to the logician and the rationalist is flung wide open for a lovelorn heart. Those mysteries that had defied the philosophers for ages are suddenly unravelled like an open book to a heart that is filled with divine love.

Although the love of God bears the most delicious of all fruits, the gain of such fruits was not the objective of our pursuit *per se*. True love is based neither on temptation nor on greed. Nor can true love be invoked out of fear. This is the philosophy expressed by Rabia Basri[22], a woman saint of the eighth century, when she addressed God in the following words:

"Neither by Thy Heaven am I tempted, Lord,
Nor of Thy Hell am I afraid;
But if I worship Thee for Thine own sake,
Then let me, Lord, of Thy Beauty partake."

In the Islamic philosophy, we love God because we find that in the entire universe, He is the only One really worth loving. He is the Gem of all gems, the Treasure of all treasures, the Beauty of all beauties. All else pales in value when compared to Him. No bond with anyone shall survive, save a bond that is made with Him. No friendship with any mortal shall outlive death, save a friendship that is made with Him. He is the true object of friendship and love—the Immortal, the Eternal, the Ever Lasting. For a true believer, God is everything. As Haḍrat Mirza Ghulam Ahmad[as] states:

[22] Rabia Al-'Adawiyya (d. 801), also known as Rabia Basri, from Basra, famous for her devotional love of God and mystical poetry.

"Our Paradise is in our God."

It is at the peak of this relationship of love that the ever-present veil is finally lifted from the Face of the Beloved. At that moment, one sees with the eye of one's soul, as much as it is possible for any mortal being to see. It is for this single glance of the Beloved's Visage that the saints and mystics have stooped to dust, and ached and pined all their lives.

With this stage of love in our worship, gone is the dread of a Wrathful God. A new God emerges in a beautiful new light. The ordinary fear of God is now replaced by the fear of displeasing and offending one's Beloved. In a loving heart, this fear is much stronger than any terror that may otherwise be invoked.

Although the religion of Islam has indeed taken the love of God to great heights, it is by no means unique to this creed. It is the common thread that runs through all faiths. On the path of seeking God, all faiths have shown similar stages, with the ultimate stage being the love and adoration of the Supreme Being. Thus, the underlying purpose of worship unites all religions of the world into one common pursuit and one common objective.

In the faith of Islam, true worship and true following of God's commands is only possible if one loves God. The mightiest of heads eventually bows when charmed by the magic of love; and the hardest of hearts eventually melts when warmed by the fire of love. The potion of love is the only potion that allows us to bind our own heart with the Heart of God and thus, in the words of an Indian sage, "making two hearts into one".

A day shall surely come when this universe shall meet with its own death. All life shall be extinguished and all worlds shall disappear to the point of nothingness. Like the times before Time, nothing shall exist at all—except the Spirit of our Lord. However, somewhere in that sole existence will survive a memory of our love that we managed to forge with Him, thereby giving us immortality beyond our farthest dreams.

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All references are listed in numerical order
(Note that the verse numbers are based on the inclusion of all invocations at the beginning of the Surahs. All translations are by Maulawi Sher Ali)

"And when thy Lord said to the angels: 'I am about to place a vicegerent in the earth,' they said: 'Wilt Thou place therein such as will cause disorder in it, and shed blood? — and we glorify Thee with Thy praise and extol Thy holiness.' He answered: 'I know what you know not.'" 2:31

(Addressing the Children of Israel)
"And *remember the time* when We delivered you from Pharaoh's people who afflicted you with grievous torment, slaying your sons and sparing your women; and in that there was a great trial for you from your Lord." 2:50

"And We will try you with something of fear and hunger, and loss of wealth and lives, and fruits; but give glad tidings to the patient,
Who, when a misfortune overtakes them, say, "Surely, to Allah we belong and to Him shall we return." 2:156-157

"Do you think that you will enter Heaven while there has not come over you the condition of those who passed away before you? Poverty and afflictions befell them, and they were violently shaken until the Messenger and those who believed along with him said: 'When *will come* the help of Allah?' Yea, surely the help of Allah is nigh." 2:215

"Do you suppose that you will enter Heaven while Allah has not yet distinguished those of you that *strive in the way of Allah* and has not yet distinguished the steadfast?" 3:143

"You shall surely be tried in your possessions and in your persons and you shall surely hear many hurtful things from those who were given the Book before you and from those who set up equals *to God*. But if you show fortitude and act righteously, that indeed is *a matter* of strong determination." 3:187

"And if Allah had enforced His will, He would have made you all one people, but He wishes to try you by that which He has given you. Vie, then, with one another in good works..." 5:49

"And if thy Lord had *enforced* His will, He would have surely made mankind one people..." 11:119

"... He has subjected to you the ships that they may sail through the sea by His command, and the rivers *too* has He subjected for you.
And He has *also* subjected to you the sun and the moon, both performing their work constantly. And He has subjected to you the night as well as the day." 14:33-34

"And He has pressed into service for you the night and the day, and the sun and the moon; and the stars *too* have been pressed into service by His command..." 16:13

"And He it is Who has subjected *to you* the sea that you may eat therefrom fresh flesh, and may take forth therefrom ornaments which you wear. And thou seest the ships ploughing through it, *that you may thereby journey* and that you may seek of His bounty and that you may be grateful." 16:15

"And if Allah had *enforced* His will, He would surely have made you all one people..." 16:94

“Every soul shall taste of death; and We prove you with evil and good by way of trial...” 21:36

“Hast thou not seen that Allah has subjected to you whatever is in the earth, and the ships that sail through the sea by His command?” 22:66

“And if thou ask them, ‘Who has created the heavens and the earth and pressed into service the sun and the moon?’, they will surely say, ‘Allah’... 29:62

“Have you not seen that Allah has pressed for you into service whatever is in the heavens and whatever is in the earth, and has completed His favours on you, both externally and internally?” 31:21

“Allah it is Who has subjected the sea to you that ships may sail thereon by His command, and that you may seek of His bounty, and that you may be grateful.
And He has subjected to you whatever is in the heavens and whatever is in the earth; all *this* is from Him.” 45:13-14

“And I have not created the Jinn and the men but that they may worship Me.” 51:57

[Referring to God:]
“Who has created death and life that He might try you —which of you is best in deeds...” 67:3

APPENDIX-1A

Details of persons responsible for exterminating more than a million individuals each.

Genghis Khan (1162-1227) was the founder and emperor of the Mongol Empire, which eventually reached the largest areal extent in history. After bringing China under subjugation, his attention turned to the west where he reached beyond the Caspian Sea, at the very borders of Europe. It is estimated that some 20–60 million people fell victim to his ruthless and bloodthirsty campaigns. His main strategy was to instil such terror in the minds of the people that none would dare stand in front of his armies. Burning of homes, decapitation of the vanquished, raping of women and general torture of the captured were popular tactics in this regard. Iran was the recipient of his particular wrath where he killed nearly three quarter of the population of the Iranian Plateau.

Hulagu Khan (1218-1265) was the grandson of Genghis Khan and a Mongol ruler who conquered much of Western Asia. Leading a huge army, he brought under subjugation the Lurs of Iran, the Abbasid Caliphate of Baghdad, the Ayyubid states in Syria and the Bahri Mamluk Sultanate in Egypt. His armies killed over a million persons and engaged in widespread looting, burning and general destruction of buildings.

Tamerlane (1325-1405) was a Turco-Mongol conqueror and the founder of the Timurid Empire in Persia and Central Asia. He was the last of the great nomadic conquerors of the Eurasian Steppes and envisioned the restoration of the Mongol Empire of Genghis Khan. His military campaigns are estimated to have caused the deaths of some 17 million people.

Leopold II of Belgium (1835-1909) was the second King of the Belgians who was responsible for the inhumane and merciless exploitation of the Congo Free State in Africa. Under the greed of amassing wealth from Congo's ivory and rubber production, he inflicted severe punishments and retributions unto the local population who acted as

his slaves. It is estimated that some 10 million people lost their lives due to his barbaric practices, which amounted to nearly 50% of the then population of the country. His reign was so terrible and scandalous that, at the turn of the twentieth century, Belgium had to relinquish control of its colony in 1908.

Talaat Pasha (1874-1921) was the ruler of the Ottoman Empire during the First World War. In 1915, he ordered the arrest and deportation of Armenian intellectuals in Constantinople, an order that eventually led to the Armenian Genocide in which some 1-1.5 million persons were killed. Extreme cruelty was used during the process that included cutting off of private parts and merciless clubbing, hammering and sawing.

Joseph Stalin (1878-1953) was the dictator of the Soviet Union from 1922 to 1953. His ruthless, brutal and vengeful acts unleashed a reign of terror in the country the like of which has rarely occurred in history. He was directly or indirectly responsible for the death of some 20 to 60 million people, mostly within his own country but many also outside. He was responsible for many direct executions and many deaths through inhumane conditions in prisons where the accused were tortured and denied essentials of hygiene, medicine and nourishment. His policies also deprived large swaths of agrarian communities of food staples causing widespread famines and deaths.

Adolf Hitler (1889-1945) would probably rank as one of the evilest persons in recent history. Leading Germany from 1933 until his suicide in 1945, his dictatorship fostered cruelty, intolerance and massacre among his subordinates and many of its citizens. He is directly responsible for the elimination of some 11 million people including Jews, Russians, Slavs, Gypsies, Freemasons, mentally ill, homosexuals and Jehovah's Witnesses. In an indirect way, his actions and policies led to the death of over 50 million people.

Mao Zedong (1893-1976) was a Chinese Communist revolutionary who founded the People's Republic of China. Beginning with the Autumn Harvest Uprising of 1927 and through the Chinese Civil War to his own reign as Chairman of the People's Republic of China, Mao is believed to be responsible for the death of some 70 million people

through direct executions and indirectly caused famines. His party and officials devised unusual ways to torture and maim people to drive fear of the regime and to obey Chairman Mao's orders.

Pol Pot (1925-1998) was a Cambodian revolutionary who became the General Secretary of the Communist Party (Khmer Rouge) and also the Prime Minister of Cambodia. As the leader of Khmer Rouge, he envisioned the founding of a new age and systematically killed his own fellow citizens. He banned the practice of Buddhism and the ownership of property and possessions. His regime perpetrated heinous crimes against the country's population including hangings, burying alive, clubbing to death, floggings, beatings and stabbings with sharpened bamboo sticks. It is estimated that the Khmer Rouge were responsible for the killing of 1-3 million people.

APPENDIX-1B

Details of individuals who were responsible for the killing of thousands of persons each.

Herod the Great (ruled 37-4 BCE), king of Judea, responsible for the deaths of 10,000 to 150,000 boys.

Caligula (12-41 C.E.), the Emperor of Rome. He was particularly noted for his cruelty towards his enemies and prided in exacting slow and painful deaths. People used to be sawed, have their tongues cut out, and were also fed to the animals.

Nero (37-68 C.E.), also an Emperor of the Roman Empire. He unleashed a reign of terror, murdering thousands and burning down cities. He was responsible for the starving, burning, crucifixion of many Christians including Saint Paul and the disciple Peter.

Attila the Hun (395-453), the ruler of the Hunnic Empire. Being a ruthless and cruel barbarian, he enjoyed waging warfare, burning down villages and killing people, some through tearing away their limbs.

Godfrey of Bouillon (1060-1100 CE) was a Frankish knight and one of the leaders of the First Crusade. Being a fundamentalist Christian, he

slaughtered thousands of Jews and Muslims in Jerusalem after laying a successful siege of the city.

Tomas Torquemada (1420-1498), the Grand Inquisitor during the Spanish Inquisition. Countless Jews, Muslims and other people were tortured and killed for refusing to convert to Christianity. He used a variety of means to torture the people including: foot-roasting, grilling, pulling out of limbs from the body, forcing water down a victim's throat, use of tight cords to stop the blood flow, garrotting and cutting off of body parts.

Vlad III (Dracula) (1431-1476), Prince of Wallachia. He enjoyed torturing and killing people commonly impaling them through sharpened stakes. He inspired the legend of Dracula.

Ivan the Terrible (1530-1584), the Tsar of Russia. His reign is known for acts of extreme brutality and torture perpetrated against often innocent people. In the Novgorod Massacre, some 60,000 people were tortured to death. He maintained his own personal torture chamber and enjoyed the beheading, whipping, raping, boiling and blinding of his victims.

Elizabeth Bathory (1560-1614), the Countess in the Kingdom of Hungary. She was responsible for the killing of some 650 girls through torture, stabbing and burning.

Maxmilien Robespierre (1758-1794), the leader of the French Revolution. He was responsible for the guillotining of some 40,000 persons while another 100,000 were killed on his order during the Vendee uprising in western France.

Heinrich Himmler (1900-1945), the leader of the Nazi Party's *Schutzstaffel* (SS or "Protective Squadron"). As such, he participated in the killing of some 6-7 million Poles, Russians, communists and other so called "undesirable" groups.

Hirohito (1901-1989), Emperor of Japan. Under his reign, the Japanese army committed many war crimes including the killing of countless Chinese, Koreans, Filipinos, Indonesians and Indochinese. Total death toll ascribed to the Japanese atrocities reach tens of millions.

Reinhard Heydrich (1904-1942), the SS-Obergruppenfuhrer in the Nazi regime. During his invasion of Poland, some 80,000 persons were killed.

Adolf Eichmann (1906-1962), lieutenant colonel of the SS and a major organiser of the Holocaust;

Josef Mengele (1911-1979), the infamous Angel of Death in the Nazi regime who experimented on countless people and sent them to death. It is estimated that some 400,000 persons were killed by him in the gas chambers.

Kim Il Sung (1912-1994), the supreme leader of the Democratic People's Republic of Korea (North Korea). He was responsible for killing, starving and torture of thousands of prisoners.

Idi Amin Dada (1923-2003), the President and dictator of Uganda. He was responsible for the killing of some 4,000 people who were thrown in crocodile infested rivers. It is estimated that some 300,000 to 500,000 people may have lost their lives due to his orders.

Robert Mugabe (1924-present), currently the President of Zimbabwe. Between 1982 and 1985, he was responsible for the killing of some 20,000 people during ethnic cleansing in Matabeleland. His ill perceived reforms have led to the loss of homes and livelihoods for nearly a million people in Zimbabwe.

Saddam Hussein (1937-2006), the President of Iraq. He was responsible for the killing of some 5,000 Kurds through chemical attack, 50,000 to 100,000 Kurds during his campaign of terror against them, and the execution of as many as 400,000 Iraqis.

Osama bin Laden (1957-2011), the infamous leader of Al-Qaida terror organisation. His attacks in the US, Tanzania, Kenya and Madrid cost the lives of several thousand people. As well, thousands of Iraqis lost their lives due to bomb explosions attributed to him and his organisation.

APPENDIX-1C

Details of significant genocides in recent history.

The **Zungar Genocide** of 1755-1758 CE in China in which some 500,000 to 600,000 Zungars[23] lost their lives.

The **Circassian Genocide** in 1817-1867 under the Tsars in which some 400,000 to 1.5 million Circassians[24] lost their lives.

The **Congo Genocide** during 1885-1908 under the Belgian rule in which 3-10 million persons lost their lives.

The **Hamidian Massacres** of 1894-1896 under the Ottoman rule in which some 80,000 to 300,000 persons of Armenian descent lost their lives.

The **Herero and Namaqua Genocide** in 1904-1908 of some 24,000 to 75,000 Herero and Nama people of Namibia by the German Empire.

The **Greek Genocide** of 1915-1918 under the Ottoman rule in which some 200,000 to 1 million persons lost their lives.

The **Armenian Genocide** of 1915-1923 under the Ottoman rule in which some 800,000 to 1.5 million Armenians lost their lives.

The **Assyrian Genocide** of 1915-1923 under the Ottoman rule in which some 275,000 to 750,000 persons lost their lives.

The **Decossackization** in the Soviet Union following the October Revolution in 1919-1920 in which the Cossacks were perceived as potential threat to the new regime and some 300,000 to 500,000 persons lost their lives.

The Holodomor Genocide of 1932-1933 in which a deliberate famine was targeted against Soviet ethnic groups causing the death of some 4.5 million people.

The **Holocaust** in which some 6 million Jews and several million others of mixed affiliation were killed between 1933 and 1945, largely under the Nazi regime of Germany.

[23] Mongolian term referring to several Oirat tribes who formed and maintained the Zungar Khanate in the 17th and 18th centuries.

[24] Circassians are a Northwest The Caucasian ethnic group native to Circassia — a historical country in North Caucasus and along the northeast shore of the Black Sea.

The **Polish Genocide** during 1937-1938 in Soviet Union in which the Polish minority was eliminated at a cost of some 110,000 to 250,000 lives.

The **Nanking Massacre** of 1937-1938 of some 275,000 to 450,000 of the Nanking (also called Nanjing, the capital of Jiangsu Province) people of China by the Japanese troops during the Sino-Japanese War.

The **Dersim Massacre** of 1937-1938 of some 13,000 to 70,000 Kurds by the Turks.

The **Ustasha Genocide** in Yugoslavia in 1941-1945 in which 78,000 to 398,000 Serbs, Jews and Romas lost their lives.

The **Volhynia Massacre** of 1943-1944 involving the killing of some 60,000 to 200,000 Poles by the Ukrainians in eastern Polish territories.

The **Mayan Massacres** of 1962-1996 in Guatemala during the Civil War in which some 100,000 to 200,000 Mayans lost their lives.

The **Indonesian Massacres** of 1965-1966 under the anti-communist banner in which some 500,000 to 2 million persons—mostly of Chinese ethnicity—lost their lives.

The **Nigerian Civil War** of 1967-1970 in which some 1-3 million persons lost their lives.

The **Bubi Genocide** in 1969-1979 of some 20,000 to 80,000 Bubis of Equatorial Guinea were killed by the then dictator Francisco Nguema.

The **Burundi Massacre** in 1972 of some 50,000 to 100,000 Hutus by the Tutsi in Burundi.

The **Ethiopian Red Terror** in 1977-1978 under the Ethiopian rule in which some 30,000 to 500,000 person lost their lives in Ethiopia and Eritrea.

The **Kurdish or Al-Anfal Genocide** in 1986-1989 of some 50,000 to 200,000 Kurdish people by the Ba‘thist regime of Saddam Hussein.

The **Rwanda Genocide** of 1994 in which some 500,000 to 1 million persons lost their lives.

The **Srebrenica Massacre** in 1995 of some 8,000 Bosnian Muslims during the war in Bosnia and Herzegovina.

The **Darfur Genocide** in 2003-2010 in Sudan in which some 400,000 persons lost their lives.

The **Yazidi Genocide** of some 5,000 Yazidis in 2015 by the ISIL in Iraq.

APPENDIX-1D

Details of major wars and battles in history that claimed the lives of at least a million persons.

The **Kurukshetra War** during 1200-800 BCE in India that caused the death of some 4 million persons.
The **Punic Wars** during 264-146 BCE between Carthage and Rome in which some 1.6 million persons lost their lives.
The **Gallic Wars** during 58-50 BCE by the Romans against the Gallic tribes in which nearly 1 million persons lost their lives.
The **Siege of Jerusalem** during 73 CE in Israel by the Roman army under the command of Titus and Tiberius that caused the death of some 1.1 million persons.
The **Three Kingdoms War** during 184-280 CE in China that caused the death of some 36 to 40 million people.
The **Goguryeo-Sui War** during 598-614 CE in Korea that caused the death of some 2 million persons.
The **An Lushan Rebellion** during 755-763 CE in China that led to the death of some 21 million people.
The **Crusades** in 1095-1291 CE between the Christians and the Muslims in which some 1.7 million persons lost their lives.
The **Mongol Conquests** of 1206-1324 in Eurasia that caused the death of some 40 million people.
The **Conquests of Tamerlane** during 1370-1405 in Eurasia that led to the death of some 7-20 million people.
The **Conquests of Mehmet II** during 1451-1481 in Eurasia that led to the death of some 873,000 persons.
The **Conquests of the Americas** during 1492-1898 in the Americas that led to the death of 55 million persons.
The **French Wars of Religion** (Huguenot Wars) during 1562-1598 in France that led to the death of some 2 to 4 million persons.
The **Japanese Invasions of Korea** during 1592-1598 that caused the death of some 1 million persons in Korea.

The **Qing Dynasty Conquest of Ming Dynasty** during 1616-1662 in China that led to the death of some 25 million people.
The **Thirty Years' War** during 1618-1648 in Europe that caused the death of some 6 million persons.
The **Seven Years' War** during 1756-1763 in Europe that led to the death of some 1 to 1.4 million persons.
The **Napoleonic Wars** during 1803-1815 in Europe that led to the death of some 5 million persons.
The **Shaka's Conquests** during 1816-1828 in South Africa that caused the death of some 2 million persons.
The **Taiping Rebellion** during 1850-1864 in China that caused the death of some 20 to 100 million people.
The **Du Wenxiu Rebellion** in China during 1856-1873 in which some 1 million persons lost their lives.
The **Dungan Revolt** during 1862-1877 in China that caused the death of some 8-12 million persons.
The **Vietnam War** (Second Indochina War) during 1910-1920 in Vietnam that caused the death of some 1 to 3.8 million people.
The **Mexican Revolution** of 1910-1920 in Mexico that led to the death of some 1 to 2 million people.
World War I during 1914-1918 in Europe that caused the death of some 20 million people.
The **Russian Civil War** and Foreign Intervention during 1917-1922 in Russia that caused the death of some 5-9 million persons.
The **Chinese Civil War** during 1927-1949 in China that caused the death of some 8 million persons.
The **Second Sino-Japanese War** during 1937-1945 that caused the death of some 25 million persons.
World War II in 1939-1945 that caused the death of some 60 million people.
The **Korean War** during 1950-1953 in Korea that caused the death of some 1.2 million persons.
The **First Indochina War** (Vietnam War) of 1955-1975 in which some 1.5 million persons lost their lives.

The **Biafra War** during 1967-1970 that caused the death of some 1 million persons in Nigeria.
The **Soviet War** in Afghanistan during 1979-1989 that caused the death of some 1 to 1.6 million persons in Afghanistan.
The **First Persian Gulf War** between Iran and Iraq during 1980-1988 in the Middle East that caused the death of some 1 million persons.
The **Sudanese Civil War** during 1983-2005 in which 1.4 million persons lost their lives.
The **Second Congo War** (the Great War of Africa) during 1998-2003 in Central Africa that caused the death of some 2.5 to 5.4 million people.

APPENDIX-1E

Details of wars and battles that claimed between 100,000 and one million lives each.

Battle of Thumbra in 547 BCE between Lydia and Persia (100,000 lost).
Battle of Plataea in 479 BCE between Greece and Persia (150,000 lost).
Kalinga War of 262-261 BCE fought between the Maurya Empire and the state of Kalinga in India (350,000 lost).
Battle of Chanping (Qin's wars of unification in China) in 260 BCE (700,000 lost).
Gallic Wars of 58-50 BCE waged by the Roman proconsul Julius Caesar against several Gallic tribes (400,000 lost).
Second Punic War (the Hannibalic War) of 218-201 BCE between Carthage and the Roman Republic (770,000 lost).
Battle of Fei River in 383 CE during the Wu Hu Era in China (150,000 lost).
Battle of the Catalaunian Plains in 451 CE during the Hunnic Invasion (165,000 lost).
Battle of Salsu in 612 CE during the Goguryeo-Sui Wars fought between the Korean kingdom of Goguryeo and Sui China (300,000 lost).
The **Siege of Constantinople** during 717-718 CE involving the Arab-Byzantine conflict that caused the death of some 150,000 persons.

Battle of Didgori in 1121 during the Georgian-Seljuk wars (210,000 lost).
Albigensian Crusade of 1208-1259 initiated by Pope Innocent III to eliminate Catharism (Christian Gnostic revival movement) in the south of France (200,000 lost).
Battle of Yamen in 1279 during the Mongol conquest of the Song dynasty in China (100,000 lost).
Hundred Years' War of 1337-1453 between England and France (200,000 lost).
Battle of Kulikovo in 1380 during the Mongol and Tatar raids against Rus (135,000 lost).
Battle of the Terek River in 1395 during the Tokhtamysh-Timur war between the Khan of the Golden Horde and the conqueror Tamerlane (100,000 lost).
Conquest of Delhi in 1398 during Tamerlane's Indian campaign (100,000 lost).
Tumu Crisis in 1449 during the Ming-Mongol War (200,000 lost).
The **Siege of Tenochtitlan** in 1521 during the Spanish conquest of the Aztec Empire resulted in the death of some 200,000 persons.
German Peasants' War of 1524-1525 (100,000 lost).
Battle of Chugju in 1592 during the Japanese invasions of Korea (100,000 lost).
Wars of the Three Kingdoms (British Civil Wars) in 1639-1651 among England, Ireland and Scotland (300,000 lost).
English Civil War of 1642-1651 (876,000 lost).
The **Deluge** involving Polish-Lithuanian conflict of 1655-1660 (240,000 lost).
Great Turkish War of 1683-1699 (120,000 lost).
Great Northern War of 1700-1721 that involved Russia, Sweden, Denmark, Norway and Poland (350,000 lost).
Battle of Panipat in 1761 between the Marathas and the Afghans in India (100,000 lost).
Battle of Leipzig in 1813 during the War of the Sixth Coalition in Europe (124,000 lost).
Indian Rebellion of 1857 against the British (100,000 lost).
American Civil War of 1861-1865 (618,000 lost).

War of the Triple Alliance in 1864-1870 fought between the triple alliance of Argentina, Brazil and Uruguay against Paraguay (400,000 lost).
Philippine American War of 1899-1912 (234,000 lost).
Battle of Mukden of 1905 between Russia and Japan (160,000 lost).
Iraqi Kurdish Conflict of 1918-2003 (139,000 lost).
Battle of Warsaw in 1920 between Poland and Soviet Union (130,000 lost).
Arab-Israeli Conflict of 1920-present (115,000 lost).
Spanish Civil War of 1936-1939 (500,000 lost).
First Indochina War of 1946-1954 (400,000 lost).
The **Siege of Changchun** in 1948 during the Chinese Civil War led to the death of some 425,000 persons.
Algerian War of Independence of 1954-1962 (350,000 lost).
Colombian Conflict of 1964-present (220,000 lost).
Islamic Insurgency in the Philippines of 1969-present (120,000 lost).
Bangladesh Liberation War of 1971 (300,000 lost).
Ethiopian Civil War of 1974-1991 (500,000 lost).
Lebanese Civil War of 1975-1990 (120,000 lost).
Indonesian Occupation of East Timur of 1975-1999 (200,000 lost).
Insurgency in Laos in 1975-2007 (100,000 lost).
Western New Guinea Genocide of 1984 (100,000 lost).
Somali Civil War of 1986-present (300,000 lost).
Lord's Resistance Army Insurgency of 1987-present in the Democratic Republic of the Congo and Central African Republic by Joseph Kony who proclaims himself the "spokesperson" of God (200,000 lost).
Civil War in Afghanistan of 1989-1996 (400,000 lost).
Algerian Civil War of 1991-2002 (200,000 lost).
Second Burundian Civil War of 1993-2005 (300,000 lost).
War on Terror of 2001-present (300,000 lost).
Iraq War (Third Persian Gulf War) of 2003-2011 (176,000 lost).
War in Darfur in 2003-present (178,000 lost).
Mexican Drug War of 2006-present (106,000 lost).
Syrian Civil War of 2011-present (220,000 lost).

APPENDIX-3A

Details of major earthquakes in history.

The **Antioch Earthquake** of 115 CE that is believed to have struck with a magnitude of 7.5 and killed some 260,000 persons.

The **Antioch Earthquake** of 526 CE struck the same region of Turkey four centuries later causing the death of some 250,000 persons.

The **Beirut Earthquake** of 551 CE hit the areas of Beirut, Tyre and Tripoli killing some 30,000 persons. It also triggered a major tsunami that destroyed cities on the Phoenician coast.

The **Damascus Earthquake** of 847 CE killed some 70,000 persons in Syria.

The **Damghan Earthquake** of 856 CE struck the then capital of Iran with a force of 8.0 on the Richter scale. It killed some 200,000 persons.

The **Ardabil Earthquake** of 893 CE struck north-western Iran just 37 years after the previous Damghan Earthquake and killed some 150,000 people.

The **Dvin Earthquake** of 893 CE killed some 30,000 persons in Armenia.

The **Palmyra Earthquake** of 1042 was estimated at magnitude 7.2 and killed some 50,000 persons in Syria.

The Aleppo Earthquake of 1138 in Syria measured 8.5 on the Richter scale and caused the death of some 230,000 persons.

The **Eastern Mediterranean Earthquake** of 1170 killed some 100,000 persons in Aleppo and Hama areas.

The **Eastern Mediterranean Earthquakes** of 1201-1202 resulted in the death of some 1.1 million persons through direct tremors and resulting famine and diseases.

The **Silicia Earthquake** of 1268 struck the region of Asia Minor killing some 60,000 persons.

The **Chihli Earthquake** of 1290 struck Ningcheng area of Inner Mongolia with a magnitude of 6.8 and killed some 100,000 persons.

The **Nankaido Earthquake** of 1498 hit the coast of Nankia, Japan, causing the death of some 30,000 persons.

The **Nepal Earthquake** of 1505 struck with a magnitude of 8.2 and is reported to have wiped out some 30% of the country's population.

The **Shaanxi (Shansi) Earthquake** of 1556 in China is considered the deadliest such event causing a death toll of 830,000 persons or nearly 60% of the region's population.

The **Semakha (Samaxi) Earthquake** of 1667 hit Azerbaijan with a magnitude of 6.9 and killed some 80,000 people.

The **Sicily Earthquake** of 1693 is estimated to have measured at magnitude 7.4 and struck Sicily, Calabria and Matta areas of southern Italy. It caused the death of some 60,000 persons.

The **Tabriz Earthquake** of 1721 hit western Iran and killed some 80,000 persons.

The **Great Lisbon Earthquake** of 1755 hit Portugal with an intensity of 8.5 on the Richter scale and totally destroyed Lisbon and surrounding areas. Fatalities are estimated at between 10,000 and 100,000.

The **Iran Earthquake** of 1780 was estimated at magnitude 7.4 and killed some 200,000 persons.

The **Calabria Earthquake** of 1783 struck Italy and killed some 50,000 persons.

The **Riobamba Earthquake** of 1797 struck Quito, Ecuador, and Cuzco, Peru, killing 41,000 persons.

The **Kangra Earthquake** of 1905 hit the north-western part of India (State of Himachal Pradesh) with a magnitude of 7.8. It killed some 20,000 persons and destroyed some 100,000 building structures.

The **Messina Earthquake** of 1908 measured 7.1 on the Richter scale and caused the death of 100,000 to 200,000 persons. The resulting tsunami also struck the nearby coast causing another 70,000 casualties.

The **Gansu Earthquake** of 1920 struck the Haiyuan County in Ningxia, China, causing a death toll of 200,000 to 240,000 persons. It measured around 8.0 on the Richter scale.

The **Great Kanto Earthquake** of 1923 struck the Japanese Island of Honshu with a force of 7.9 on the Richter scale. It caused the death of some 140,000 persons and the destruction of some 447,000 houses. An additional 93,000 died from landslides, tsunami and aftershocks.

The **Xining Earthquake** of 1927 struck the Quinghai Province of China with a force of 7.9 on the Richter scale. It killed 40,000 persons and caused very extensive damage to homes and school buildings.

The **Quetta Earthquake** of 1935 hit the Baluchistan Province of India (now Pakistan) with a magnitude of 7.5 and caused the death of some 30,000 to 60,000 persons.

The **Ashgabat Earthquake** of 1948 in the Soviet Union struck with a force of 7.3 on the Richter scale and took a toll of 110,000 lives.

The **Yungay Earthquake** of 1970 hit Peru with an intensity of 7.9 on the Richter scale. The tremor killed 75,000 persons, injured 143,000 and left over 25,000 unaccounted due to avalanches and rockslides.

The **Tangshan Earthquake** of 1976 in China took the lives of some 255,000 persons and measured 8.2 on the Richter scale. It lasted for only ten seconds.

The **Rudbar Earthquake** of 1990 hit north-western Iran and resulted in the death of 40,000 persons, injury of 60,000 persons and made nearly 500,000 persons homeless.

The **Izmit Earthquake** of 1990 struck northern Turkey with a magnitude of 7.9. It resulted in the death of some 17,000 to 45,000 persons and made some 300,000 people homeless.

The **Sumatra Earthquake and Tsunami** of December 2004 struck with a force equivalent to 32 Gigatons of TNT and measured 9.2 on the open-ended Richter scale. The original shock and the resulting tsunami took a toll of 225,000 lives.

The **Kashmir Earthquake** of 2005 with an intensity of 7.6 on the Richter scale hit northern Pakistan and killed a total of some 100,000 people locally and in surrounding areas.

The **Great Sichuan Earthquake** of 2008 struck the Sichuan area of China with a magnitude of 8.0. It killed 70,000 persons, injured 374,000 and made 5 to 15 million people homeless.

The **Haiti Earthquake** of 2010 struck Port-au-Prince leading to 316,000 deaths, 300,000 injured and some 1 million people becoming homeless. The intensity was only 7.0 on the Richter scale.

The **Tohoku Earthquake** of 2011 struck the east coast of Japan with a magnitude of 9.0 on the Richter scale. It was one of the strongest

earthquakes to have hit the world and the strongest one in the history of Japan. Despite the fact that most buildings and structures in Japan are built to withstand earthquake shocks, the Tohoku earthquake claimed 16,000 lives, brought down some 130,000 buildings and did significant damage to four major nuclear power plants. It was the worst disaster faced by Japan after the Second World War.

APPENDIX-3B

Details of major Storms, Hurricanes, Sea Surges and Floods in history.

North Sea Flood and Storm Surge of 1212 CE in the Netherlands took the lives of some 60,000 persons.

Hakata Bay Typhoon of 1281 hit the coast of Japan (western Pacific) killing some 65,000 people.

St. Lucia's Flood and Storm Surge in 1287 in the Netherlands took the lives of some 50,000 to 80,000 persons.

The **Saint Felix Flood and Storm Surge** of 1530 struck Holland and caused the death of some 400,000 persons nationwide.

Backerganj Cyclone of 1584 struck the Bay of Bengal region causing the death of some 200,000 persons.

The **Kaifeng Flood** of 1642 took place in China and caused the death of some 350,000 persons.

Sundarban Storm of 1699 struck Bangladesh area killing 50,000 persons.

Hooghly River Cyclone of 1737 struck India and Bangladesh (Bay of Bengal) killing some 300,000 persons.

The **Great Hurricane** of 1780 is considered to be the worst Atlantic hurricane that devastated Puerto Rico, Dominican Republic, Lesser Antilles and Bermuda. Death toll amounted to 22,000 persons.

Barisal Cyclone of 1822 hit the Bay of Bengal area of Bangladesh killing 50,000 persons.

Coringa Cyclone of 1839 struck Bay of Bengal causing the death of some 300,000 people.

Indian Cyclone of 1854 struck the Bay of Bengal area killing some 50,000 persons

Calcutta Cyclone of 1864 hit the Bay of Bengal area killing some 60,000 persons.

The **Great Backerganj Cyclone** of 1876 hit the Bay of Bengal region causing the death of 200,000 people.

Haiphong Typhoon of 1881 struck Vietnam (western Pacific) causing the death of some 300,000 persons.

Great Bombay Cyclone of 1882 hit the Arabian Sea coast of India killing some 100,000 persons.

The **Huang He (Yellow) River Flood** of 1887 in China caused the death of some 1 to 2 million persons.

Chittagong Cyclone of 1897 struck Bangladesh and killed some 175,000 people.

Hurricane Galveston of 1900 struck Galveston, Texas, causing death of some 8,000 to 12.000 persons.

Yangtze River Flood of 1911 in China took the lives of some 100,000 persons.

Wenchou Cyclone of 1912 struck China (western Pacific) killing 50,000 persons.

Swatlow Cyclone of 1922 struck China (western Pacific) causing the death of some 100,000 persons.

The **Huang He (Yellow) River Flood** of 1931 in China caused the death of some 4 million persons.

Yangtze River Flood of 1935 in China caused the loss of some 145,000 persons.

Indian Cyclone of 1935 struck the Bay of Bengal region killing some 60,000 persons.

The **Huang He (Yellow) River Flood** of 1938 in China caused the death of over 500,000 persons.

Bangladesh Cyclone of 1942 struck the Bay of Bengal area killing some 61,000 persons.

The **Northern River Flood** of 1959 in China caused the death of some 2 million people.

The **Bhola Cyclone** of 1970 hit Bangladesh and West Bengal (Bay of Bengal) causing a death toll of 300,000 to 500,000 people. Much of the damage was done by the sea surge in the Ganges Delta which wiped out entire villages.

Hanoi and Red River Delta Flood of 1971 in Vietnam took the lives of some 100,000 persons.

Super Typhoon Nina hit China in 1975. It destroyed the Banqiao Dam which led to great flooding downstream and collapse of several other dams thus magnifying the damage. Total death toll exceeded 100,000 persons.

Cyclone 02B struck Bangladesh in 1991 causing the death of some 138,000 persons.

Hurricane Katrina of 2005 was the most expensive hurricane recorded in the United States history. While it killed only 1800 persons, the damage done by it was estimated at US$81 billion.

Cyclone Nargis of 2008 struck Myanmar (Burma) causing the death of some 138,000 persons.

APPENDIX-3C

Details of important volcanic eruptions in history.

Lake Toba Super Volcanic Eruption around 75,000 BCE in Sumatra, Indonesia, is considered to be the greatest such event in our history that may have caused a global winter for 6-10 years. Some 2,000 to 3,000 cubic kilometres of material was ejected during this event. The catastrophe caused a wide scale decimation of human population in the world reducing it to only 3,000 to 10,000 breeding pairs. A reduction of the human gene pool to this level is also suggested by recent genetic research. It is also suspected that the archaic species of Homo, *Homo erectus*, became extinct around the same time.

The **Santorini-Therasia Eruption** between 1650 and 1500 BCE in the Aegean Sea is believed to have wiped out the Minoan Civilisation and caused famine in China. It is rated at VEI 7 on the scale of volcanic intensity.

The **Vanuatu Eruption** of 50 CE on the Ambrym Island in the southwestern Pacific Ocean is rated at VEI 6+. It created a 12km wide caldera. Because of extremely low population (if any) at the time, it was not a big disaster in terms of human life.

Mount Vesuvius Eruption of 79 CE in Italy killed some 10,000 people and was responsible for the burial of two towns, Herculaneum and Pompeii.

The **Ilopango Eruption** of 450 CE in central El Salvador was a major event with an intensity of VEI 6+. While the death toll is not known, the volcanic eruption destroyed the early Mayan cities. As a result, the centres of Mayan civilisation moved from the highlands to the lowlands.

The **Changbaistan (also Baitoushan) Eruption** of 1000 CE took place at the border between China and North Korea. It is rated at VEI 7. Some erupted material was thrown as far away as Japan — a distance of 1,200 kilometres.

The **Huaynaputina Eruption** of 1600 in Peru is considered the largest volcanic activity in South America. Its intensity is rated at VEI 6 on the scale. It is believed to have caused the death of some 2 million persons in Russia alone through the famine of 1601-1603. Several summers following this eruption were the coldest in 500 years.

Mount Vesuvius Eruption of 1631 in Italy killed some 6,000 people. The volcano has been active in the past killing some 10,000 persons in 79 CE.

The **Laki Eruption** of 1783 in Iceland is believed to have led to the direct death of 10,000 persons and an additional killing of a vast number of people in Iceland, Europe, Egypt and as far away as Japan through climatic changes and famines. Over an eight-month period and through 140 vents, the eruption released some 120 million tonnes of sulphur dioxide gas, which played havoc with weather conditions over much of Europe.

Mount Unzen Eruption of 1792 in Japan killed some 12,000 to 15,000 persons and triggered landslides and tsunami.

Mount Tambora Eruption of 1815 on the island of Sumbawa in Indonesia is considered the largest recorded eruption in human history

standing at VEI 7 on the scale. The sound blast of the sudden eruption was heard as far away as Sumatra a distance of 1,900 kilometres. The eruption killed some 100,000 persons directly and may have caused the death of an additional 100,000 persons in Europe due to crop failures. The following year, 1816, is known in Europe as the "year without a summer".

Mount Galunggung Eruption of 1882 in Java killed some 4,000 persons.

The **Krakatoa Eruption** of 1883 in Indonesia was a catastrophic even causing the death of some 100,000 persons through ash-fall and tsunamis. Its intensity is rated at VEI 6 on the scale. The ash in the atmosphere caused reduction of average world temperatures and darkened the sky for many years.

The **Mount Pelee Eruption** of 1902 on the island of Martinique in the West Indies was responsible for the death of some 40,000 persons mostly in the city of St. Pierre where hardly a person survived.

The **Santa Maria Eruption** in 1902 in Guatemala is rated at VEI 6 on the intensity scale. It killed some 5,000 persons. It had been a dormant volcano, sitting silent for 500 years.

The **Novarupta Eruption** of 1912 on the Alaskan Peninsula was a major eruption of the twentieth century (rated VEI 6 on the scale) but did not kill anyone because of its remote location.

Mount Kelut Eruption in 1919 in Indonesia killed some 5,000 persons.

Nevado del Ruiz Eruption of 1985 in Columbia killed some 23,000 persons, many through mudflows.

The **Mount Pinatubo Eruption** of 1991 on the island of Luzon in the Philippines killed only 800 persons while its intensity at VEI 6 was high. This is the last major and significant volcanic eruption to have taken place in the world. Due to early warnings, some 200,000 people were evacuated from the region. The emission of sulphur dioxide gas, dust and ash from the eruption continued to affect the world weather for the next few years.

APPENDIX-3D

Details of major famines and droughts in history.

Mayan Famines of 800-1000 CE are believed to have killed over a million people and initiated a collapse of their civilisation.

Great European Famine of 1315-1317 CE was the worst such event in European history and killed some 7.5 million persons. It was caused by unusual weather and steady rains.

Russian Famine of 1601-1603 was the worst such event in Russian history that wiped out 2 million persons or nearly one-third of the local population. It was caused by a combination of crop failures due to the volcanic eruption of Huaynaputina in Peru and from unusually cold weather.

Deccan Famine of 1630-1632 was one of the worst to hit central India. Over a three-year period, some 2 million people lost their lives.

Great Famine of Estonia of 1695-1697 killed some 150,000 to 175,000 persons in Estonia, Livonia and Sweden.

East Prussian Famine of 1708-1711 killed some 250,000 persons or nearly 40% of the region's population.

Bengal Famine of 1769-1773 affected the lower Gangetic plain of India and caused the death of some 15 million people.

Czech Famine of 1770-1771 killed over 100,000 persons in Czech lands.

Chalisa Famine of 1782-1784 in southern India took place after the unusual El Nino of 1780 and the subsequent droughts. Some 11 million persons died in Uttar Pradesh, Punjab, Rajputana, Kashmir and Madras.

Great Tenmei Famine of 1782-1788 killed almost a million people in Japan.

Agra Famine of 1837-1838 in India struck in the newly established Northwest Province of India that was ruled by the East India Company. Some 800,000 persons lost their lives.

Great Irish Famine of 1845-1852 was caused essentially by a plant disease that destroyed the potato crops. Some 1 million people lost their lives and another one million emigrated out of Ireland.

Upper Doab Famine of 1860-1861 in India affected the Ganga-Yamuna Doab in the North-West Province killing some 2 million people.

Finnish Famine of 1866-1868 caused by a combination of weather conditions and poor management led to the death of some 150,000 persons in Finland and northern Sweden.

Rajputana Famine of 1869 was caused by late rains for two consecutive years and the decimation of the crops by the locust. Some 1.5 million people lost their lives.

The **Persian Famine** of 1870-1871 in Iran was caused by lack of rains for two years. A total of 1.5 to 2 million persons were killed as a result.

Indian Famine of 1876-1878 affected an area of some 250,000 square miles in India killing some 10.3 million persons.

Northern Chinese Famine of 1876-1879 is believed to have killed some 13 million persons.

Horn of Africa Famine of 1888 led to the death of some 1 million people in Ethiopia, Sudan and Somalia.

Indian Famine of 1896-1902 affected India during the British Raj and was responsible for the death of some 19 million persons.

Chinese Famine of 1907 is believed to be the second worst famine in history causing the death of some 24 million persons in China.

Russian Famine of 1921 in the Volga-Ural region led to the death of some 5 to 10 million persons. It came in the wake of the heavy destruction caused by the First World War.

Chinese Famine of 1928-1930 led to the death of some 3 million persons over a three-year period.

Soviet Famine of 1932-1933, locally called 'Holodomor' (hungry mass death), was responsible for the death of some 7 to 10 million persons.

Chinese Famine of 1936 led to the death of some 5 million people in China.

Chinese Famine of 1942-1943 caused the death of some 3 million persons in China because of natural and man-made causes.

Bengal Famine of 1943 was one of the worst such event to hit that part of India and caused the death of some 1.4 to 4 million persons.

Vietnam Famine of 1944-1945 during the Second World War killed 400,000 persons and was caused by a combination of poor government management, floods and drought.

Soviet Famine of 1946-1947 in Russia was caused by drought and generally poor logistics following World War Two. Some 1 to 1.5 million persons lost their lives.

Chinese Famine of 1958-1961 is one of the worst on record and killed anywhere from 15 to 40 million persons in China.

The Sahel Drought of 1968-1972 killed some 1 million persons in Mauritania, Mali, Chad, Niger and Burkina Faso.

Ethiopian Famine of 1984-1985 was caused by low rainfall and poor government management. It killed 1 million people in Eritrea and Ethiopia.

Somalia Famine of 1991-1992 killed some 300,000 persons.

North Korean Famine of 1994-1998 is one of the most recent famines in the world that took the lives of some 3.5 million persons or some 15% of the country's population. The famine was caused by a number of factors including, droughts, floods, economic mismanagement and loss of Soviet support.